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Philosophy of Education

R E V I S E D E D I T I O N

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H A R P E R & B R O T H E R S

PHILOSOPHY OF EDUCATION

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PREFACE

PHILOSOPHY, at the present day, is pursued by thinkers who, as a rule, group themselves in one of three schools, as "realists," "idealists," or "pragmatists." Each of these schools has, of course, many ramifications.¹ It starts as a "method of inquiry," and disclaims dogmatism. All it asks is to be allowed to investigate in its own unprejudiced way, and report its unprejudiced findings. But each school, as it proceeds with its investigation, finds itself, by an inner necessity, driven, first, to differentiate its method from the methods of other schools, and, secondly, to elaborate the presuppositions of its method and of its findings, in distinction from the presuppositions elaborated by other schools. Almost before it knows what has happened, each school finds itself armed *cap-à-pie* with a technical logic or dialectic, with a characteristic metaphysic, and with a characteristic confidence that *its* logic and metaphysic, and *its* logic and metaphysic alone, are competent to analyze and interpret the problems of the present age.

When it comes to analyzing and interpreting the problems connected with education, philosophers have, characteristically enough, produced works which, from the highly specialized

¹ These three groups are represented in well-known cooperative publications. There is (1) *The New Realism*, and its counterpart, *Critical Realism*; (2) *Essays in Honor of James Edwin Creighton*, representing one form of idealism, and *Personal Idealism*, representing a different form; (3) *Creative Intelligence*, representing pragmatism. We have a further offshoot of realism, called Positivism, following the regular path of development at the present moment. The further development of such schools, with the minute differentiations of one adherent from all other adherents of the same school, leads to alliances, on this point and that, with members of opposing schools, in ways which, for the layman, complicate the picture intolerably, and induce the expert to write a book demonstrating "The Meeting of Extremes in Contemporary Philosophy." In these further developments, a philosophical school comes to resemble, in many respects, a political party, with a program, with slogans, and even with rewards and penalties for consentients and dissentients.

standpoint of this or that school, say all that needs to be said. But what one school affirms, another denies; and where all happen to use the same words, they use them in different senses. No philosophic writer has, up to the present, attempted to set before his readers the alternative philosophies of education, except as envisaged from his own specialized standpoint.

The present textbook has been written with the aim of presenting, creatively and sympathetically, all three views, leaving it to the students to decide for themselves which they prefer and find most helpful. Experience, both in and out of the classroom, indicates that such students instantly take sides and differentiate themselves as predominantly "realists," "idealists," or "pragmatists." They have no difficulty in identifying all three types among their former instructors, their contemporaries, and their practice-pupils; and they learn to think out for themselves, and apply to particular cases, the consequences of the three fundamental philosophic points of view.

I owe a debt of gratitude to writers, both past and present, in the field of education: especially, of course, to those from whose books I venture to quote. And here I should perhaps explain that, like the devil, when I quote, I quote for my own purposes: namely, to illustrate general and typical backgrounds and outlooks, and to stimulate to further inquiry, rather than to terminate investigation. I can readily understand that a given idealist, or realist, or pragmatist, on finding himself referred to by name, might think he should be referred to, not simply, but with explicit statement of all the qualifications which differentiate him from other idealists, realists, or pragmatists; and if my purpose were to write a minutely accurate, detailed history of present-day philosophy, I should endeavor to be explicit on such points. But this book is primarily a "philosophy of *education*," written for students, many of whom are not professed students of philosophy, as such. My aim is thus, by a slight oversimplification which sticks to broad, general differences, to stimulate, but to leave unsatisfied, asking for more. I have furnished, however, not merely samples, but also indications of where more can be found.

While acknowledging this debt to the writers from whom I quote, and also to their publishers, I feel that I owe an even greater debt to the members of the American Philosophical Association. It was by attending their meetings that I first learned to listen patiently, and with growing sympathy, to views opposed to my own; and it is through participating in their deliberations that I have gradually come to recognize the value of all three schools of thought. Theoretically, they present alternative explanations. But while each can be "verified" without difficulty, no one school can claim to have excluded the possibility of alternative explanations. My own bias remains what it has been; and in this book I have not attempted to conceal it. But I have come to believe in the value of friendly rivalry and continued cooperation, even when the acceptance of one standpoint logically excludes the definite acceptance of all others.

I desire in particular to thank Messrs. Thornton Butterworth, Ltd., of London, for permission to quote from B. Russell's *Problems of Philosophy* (Home University Library); the University of Chicago Press, for permission to quote from J. Dewey's *The School and Society*; Messrs. E. P. Dutton & Co. of New York, for permission to quote from J. and E. Dewey's *Schools of Tomorrow*; Messrs. Kegan Paul, Trench, Trubner & Co. of London, and Messrs. Harcourt, Brace & Co. of New York, for permission to quote from B. Russell's *The Analysis of Matter*; Messrs. Henry Holt & Co. of New York, for permission to quote from G. W. Cunningham's *The Problems of Philosophy*, J. Dewey (*et al.*), *Creative Intelligence*, W. James' *Principles of Psychology*, and R. S. Woodworth's *Psychology*; Messrs. Hodder & Stoughton of London, for permission to quote from J. Adams (*et al.*), *The New Teaching*; Messrs. Longmans, Green & Co. of London and New York, for permission to quote from H. A. Carr's *Psychology*; The Macmillan Company of New York, for permission to quote from W. C. Bagley's *The Educative Process*, W. W. Charters' *The Teaching of Ideals*, S. Alexander's *Space, Time and Deity*, B. Bosanquet's *Principle of Individuality and Value*, and Durant Drake's *Mind and its Place in Nature*;

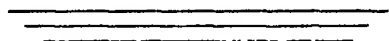
W. Goodsell's *A History of the Family as a Social and Educational Institution*; Messrs. Nisbet of London, for permission to quote from C. E. M. Joad's *Mind and Matter*; Messrs. W. W. Norton & Co. of New York, for permission to quote from B. Russell's *Philosophy*; Messrs. Allen & Unwin, for permission to quote from E. B. Holt's *The Concept of Consciousness*, and J. Muirhead's *Contemporary British Philosophy*; Messrs. Charles Scribner's Sons of New York, for permission to quote from H. H. Foster's *Principles of Teaching in Secondary Education*; Teachers College, Columbia University, for permission to quote from E. L. Thorndike's *Educational Psychology*; and The Viking Press, Inc., for permission to quote from T. Veblen's *The Higher Learning in America*; The American Council on Education, Washington, D. C., for permission to quote from Joseph K. Folsom's *Youth, Family, and Education*; and the National Congress of Parents and Teachers, Washington, D. C., for permission to quote from *Education for Home and Family* (Proc. Conf. at Hot Springs, Ark., May, 1931). I also desire to thank the editors and publishers of *The Dalhousie Review*, for permission to reprint portions of a paper on *Philosophy and Education*, and the editors and publishers of *The Toronto University Quarterly*, for permission to reprint portions of a paper on *The Self in Modern Thought*, and the editors and publishers of the *Journal of Philosophy*, for permission to reprint portions of a paper on *Balanced Philosophy and Eclecticism*—papers written by myself.

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University of Manitoba, 1936

In revising for this reprinting, I have omitted the original Chapter XX, and have inserted in its place a new chapter on social education. Throughout, I have made slight changes in the account of pragmatism, so as to be in agreement with recent philosophical developments. I have also (Finale) given, by request, a brief statement of my own position. For most of the suggestions leading to this revision I am indebted to Professors Fred L. Hipp of Syracuse University, Herman H. Horne of New York University, and M. H. Willing of the University of Wisconsin.

PHILOSOPHY OF EDUCATION



Chapter I

THE THREE TYPES OF PHILOSOPHY

IN STUDYING the philosophy of education, it is necessary to observe at once that there is no *one* "philosophy" of which we might all be adherents, some superficially, others more profoundly. On the contrary, the reflective or philosophic life involves definite choice between distinctive points of view. Some of us feel drawn "naturally," as we say, in one direction, while others feel drawn "naturally" in different and opposed directions; and it is in the nature of the case that this should be so.

Fortunately for our purposes as students, there are only three typical directions between which philosophers choose; and consequently there are only three main types of educational philosophy. We shall begin, then, by differentiating the typical directions which philosophy follows, so as to discover for ourselves which type fits in best with our own nature and experience. After differentiating in general terms the three typical forms of educational philosophy, we can proceed to study the self, mind, and knowledge, which are of fundamental importance in that field. We can then apply the positions studied to more specific problems, so as to bring out the principles involved in educating the self of the modern child. That is to say, we shall examine the principles involved in the selection of subject matter, of incentives; of classroom and examinational methods and techniques. We shall conclude with a study of the two extremes—of ignorance on the one hand, and liberal education on the other—and a summary of the results obtained. It is expected that the student will understand, in principle and in its general application, each of the three typical philosophies of education, although it is not anticipated that he

will attain an intimate grasp of more than one, the one with which he personally feels the greatest sympathy.

"Philosophy" is the name given to life at the reflective level. The philosopher attempts to attain a reflective and critical point of view, from which he endeavors to understand experience and to suggest methods of improving its quality. As Dewey puts it:¹

(Philosophy is and can be nothing but this critical operation and function become aware of itself and its implications, pursued deliberately and systematically. It starts from actual situations of belief, conduct, and appreciative perception which are characterized by immediate qualities of good and bad, and from the modes of critical judgment current at any given time.) These are its data. These values, criticisms, and critical methods, it subjects to further criticism as comprehensive and consistent as possible. The function is to regulate the further appreciation of goods and bads.

At the present day, there are three such standpoints which are regarded as fundamental: neither more nor less than three. The reason for this is easy to grasp. In the first place, we find ourselves facing a "reality" which we are not conscious of having created. It has its own laws and its own nature, and frequently we find ourselves obliged to submit to these laws, whether we like them or not. The thinker who concludes that *the world of physical reality is the truly fundamental thing in experience*, has attained to one of the three fundamental positions. He regards the physical world as "objective" and "factual," something to be accepted and conformed to, while his personal wants and feelings are treated as "subjective," "subordinate," and "secondary." Such a thinker is known as a *realist*, or a "physical realist," and he is sometimes called a "materialist," a "positivist," or a believer in "naturalism."

In the second place, it will be clear that we might adopt an entirely different and opposed point of view. We might maintain that *the self is primary in our experience, while "things" are of secondary importance*. We ourselves decide as to what is im-

¹ John Dewey, *Experience and Nature*, 1929, pp. 403-404, slightly condensed.

portant or has value for us; and mind, rather than things or "matter," is the essential element in experience. Those who regard *mind and the self as central*, and as furnishing the standards and ideals which give to experience its structure and aims, and regard material things as secondary, as known only via our hypotheses and ideas about them, are known as *idealists*, and sometimes as "transcendentalists," because they transcend or go beyond the merely physical environment and the sense-perceivable conditions of experience.

In the time of the philosopher Fichte, it was supposed that there were only these two possible types of philosophy. Fichte says:²

Philosophy seeks to discover the ground of experience. But experience yields the entire material of our thinking. How can the philosopher go outside or transcend experience? He can abstract, i.e., can separate, in his thinking, what is united in experience. In our experience, *things* and *mind* are inseparably united. By abstracting from one of these, the philosopher transcends or raises himself above actual experience. If he abstracts from mind, he retains the conception of things, considered apart from our thinking them: the conception of *things taken absolutely or in themselves*. This procedure gives us the dogmatic (i.e., realist) way of explaining experience. Or if, on the other hand, we abstract from things, we retain the conception of a *mind in itself*, abstracted from its relation to the things we experience, and *considered absolutely*. This procedure gives us the "idealistic" way of explaining experience. Only these two philosophical systems are possible, as logical procedures.

But Fichte himself unconsciously did much to prepare for the recognition of a third type, the type known as *pragmatism* or "*radical empiricism*."³ Both realism and idealism become full-blown speculative theories which seem to leave behind them the

² J. G. Fichte, *Erste Einleitung in die Wissenschaftslehre*, 1797, sects. 2-3, freely paraphrased and condensed.

³ The chief names in the field of pragmatism are C. S. Pierce, William James, and John Dewey, in America. There are somewhat parallel movements in Europe, e.g., H. Vaihinger (*Philosophy of As If*) in Germany, E. Boutroux in France, and F. C. S. Schiller (*Humanism*) in England. The main force of the movement is in America.

obvious facts of experience. The pragmatist remains rooted in experience as he finds it, and refuses to "speculate," to construct theories which transcend the obvious realities of human life. He believes that *our experience is practical through and through, a reaction to stimulation in a biological and social setting*. Especially does he attempt to make central in his thought the activity of the modern industrial community. Both of the older types of thought seem to him to abstract too much from the facts of experience, and to occupy themselves with self-made problems which would have had no existence for them if they had regarded human beings as essentially active, and only as very incidentally "contemplative."

In the last generation, idealism was the dominant view in philosophy. Realism was looked down upon as natural but naïve, deficient in philosophic insight; and pragmatism was despised as not really philosophy at all, but a weak excuse for remaining outside the vital currents of intellectual thought. In our own generation, especially since the War, idealism is widely regarded as a beautiful but useless dream, a mischievous substitute for meeting reality upon its own ground, by withdrawing into some Cloud-cuckoo-town of the imagination. Realism, especially in the form known as "positivism," and pragmatism divide the allegiance of most of the younger thinkers, and have not hesitated for many years to take the offensive in the battle of systems, and, indeed, to regard themselves largely as victors in the field.

The above is intended as the merest introduction. It will be found that persons with the background and outlook of realists envisage all problems in a way characteristically different from all persons with the background and outlook of idealists or pragmatists; and the same is true of the other cases. A realist and an idealist and a pragmatist, all discussing the same educational problem, may even use the same words in their definitions so that they seem to be speaking the same language. But since they use all words with characteristically different meanings and backgrounds, it is scarcely to be wondered at when they reach conclusions which are different and opposed.

For example, representatives of all three philosophies can agree in words that we should keep closely in touch with reality, should be more concrete, and should avoid abstractions. But since what an idealist calls "concrete" is almost the same as what a pragmatist calls "abstract," and vice versa, such apparent agreements lead, in the end, only to bewilderment. Again, the concrete reality of physical science, in which the realist believes with his whole soul, is similarly to the idealist the merest fragment posing as the whole. To the pragmatist it is an abstraction, although a different sort of abstraction.⁴

Again, all agree that the *pupil* should be central for all educational purposes. But the realist regards the pupil as primarily a plastic nervous system to be molded, in interactivity with the physical environment, along lines set by the scientifically ascertained nature of physical reality. The idealist regards the same pupil as essentially a transcendental self, needing assistance in setting himself free from the fetters imposed by acceptance of the physical and social world accepted by realism. The pragmatist regards the same pupil, not as any kind of reality *per se*, but as a social-vocal phenomenon of a temporary and changing character, which should be so stimulated as to become functional in the life of the modern industrial community.

The differences between these schools extend down to the minutest elements, both of theory and of practice, in education; and in discussing educational questions, we shall avoid confusion only if we keep these standpoints as distinct as possible, asking, in each instance, whether this or that writer or speaker is expressing, consciously or with naïve unconsciousness, the position of realism, of idealism, or of pragmatism.

Let us take a closer view of realism as a philosophical theory. In a popular sense, there is something attractive about the very thought of realism. Its stern regard for fact, for the realities of actual situations, its avoidance of sentimentalism, the merely imaginary and the unreal, are in complete accord with the modern mind. Its close association with science, as well as common sense, is also much in its favor. It has been, and still is, true, that most

students of science, as well as most persons of average mentality, express themselves unhesitatingly in terms which fit in easily with the main positions maintained by realists. But all this is true only when we are dealing with popular, not explicitly philosophic, thinking. As soon as we take a good look at modern realism in its various forms, it at once becomes highly doubtful how far we can consider ourselves competent to understand and pass judgment upon it, and how far we should not rather treat it as a matter for technical, expert consideration only.

Reality, for the modern realist, is, roughly, the content of the physical sciences. It is what has to be accepted as objective, as experienced and discovered, but not invented, by us. When we try to consider it in a general way, we can analyze it into matters-of-fact and relations. Matters-of-fact are analyzed into elements which are given to us in experience, and are called *data*; or, since the experience is thought of as sensuous, they are called *sense-data*. Since, further, the metaphor that they are "given" to us suggests other questions, namely, as to who gives them and why, it is usual to restrict the term still more, and to call the ultimate factual elements of experience by the Latin term *sensa*, and to understand by it such phenomena as this-red, that-blue, this-loud, that-soft tone; this-rough, that-smooth impression; this-bitter, that-sweet taste, etc. As Bertrand Russell puts it:⁴ "When I try to disentangle the primitive from the inferred elements in what I take to be my knowledge, I find that the . . . primitive part seems something like this: There are coloured shapes which move, there are noises, smells, bodily sensations, the experiences which we describe as those of touch, and so on. There are relations among these items: time-relations (earlier and later) among all of them, and space-relations (up and down, right and left . . .) among many of them. . . ." It is felt that everyone has such experiences, that they are undeniably factual, and that they somehow furnish, in life as well as in the laboratory, the last court of appeal when we have to decide between this and that theory. It is believed by realists that when we can analyze an experience

⁴ *The Analysis of Matter*, 1927, pp. 180-181, condensed.

down to the level of *sensa*, we have reached a level at which we have certain real knowledge, and no differences of opinion are possible. We know, and know that we know. According to Bertrand Russell.⁵

Let us give the name of "sense-data" to the things that are immediately known in sensation: such things as colours, sounds, smells, hardnesses, roughnesses, and so on. We shall give the name "sensation" to the experience of being immediately aware of these things. Thus, whenever we see a colour, we have a sensation of the colour, but the colour itself is a sense-datum, not a sensation. The colour is that of which we are immediately aware, and the awareness itself is the sensation. . . . Truths of perception, self-evident truths . . . there is the kind which simply asserts the *existence* of the sense-datum, without in any way analysing it. We see a patch of red, and we judge "there is such-and-such a patch of red," or more strictly "there is that"; this is one kind of intuitive judgment of perception. . . . Intuitive knowledge is trustworthy in proportion to the degree of its self-evidence . . . gradation in trustworthiness, from the existence of noteworthy sense-data . . . , which may be taken as quite certain. . . .

Relations are exemplified by mathematical and spatial relations: $12 = \text{twice } 6$, $7 + 5 = 12$; if A is to the right of B and B is to the right of C, then A is to the right of C. The sciences of mathematics and mathematical physics are constituted by propositions expressing such relations. Within specified fields we apprehend the truth of such propositions with as much certainty as we apprehend that red is red and not blue, that such and such a tone is being played loudly and not softly, etc. A proposition such as " $2 + 2 = 4$ " holds good within the field of whatever things can be added. It is true of countables or addibles without exception. But beyond the field of countables—if there is any such further field—it has no application.⁶ We cannot say, "two uncountables added to two other uncountables make four uncountables," without falling into contradiction with ourselves. For it is obvious that uncountables, by their very idea, cannot be counted

⁵ *The Problems of Philosophy*, 1912, pp. 17, 178–179, 217. This position is not accepted by all modern realists.

or added. The words "two" and "four" mean nothing in such an attempted application. So too the propositions of logic hold good of everything which falls within the field of the logically thinkable. But if there is anything which is extra-logical or non-logical or a-logical, as some people think our emotions are, and as others think space and time are, then the propositions of logic have no application to such fields. We cannot think the unthinkable, although perhaps we may have to accept it as brute fact. The truths of science, then, are propositions which hold good within their limited fields, and the truth of such propositions can be grasped with at least as much certainty as the certainty with which we apprehend the elementary *sensa*. Russell says:⁶

When the object of sense is complex, we subject it to some degree of analysis. We may judge "that patch of red is round." . . . Another example of this kind of judgment is "this is to the right of that," . . . In this kind of judgment the sense-datum contains constituents which have some relation to each other, and the judgment asserts that these constituents have this relation. . . . I abstract the universal relation. . . . Between universals, as between particulars, there are relations of which we may be immediately aware. . . . Our knowledge of such relations, although it requires more power of abstraction . . . appears to be equally immediate, and (at least in some cases) equally indubitable. . . . The simpler truths of logic and arithmetic . . . may be taken as quite certain.

Most propositions, however, are mixed in kind. They express relations, not between formal concepts like the concepts used by the mathematician and logician, but between concrete concepts derived from the experience of *sensa*, and from our emotions. "One crowded hour of glorious life is worth an age without a name," does not depend, for its meaning and value, upon mathematics and logic. "It is wrongful to lie, steal, and kill," "It is more wrongful to kill than to lie or steal," and similar propositions fall within the class of "value-judgments," where we merely accept the normal judgment of value, much as we accept the normal judgment as to what is red or loud or troublesome. So

⁶ *Ibid.*, pp. 159-161, 179, 217, condensed.

too of the esthetic judgments. "The second movement of Beethoven's Fifth Symphony is not in the same class with jazz," "This Portrait of a Lady, by Holbein, has more essential dignity than all the portraits of Sargent put together," etc., are value-judgments, and so are most judgments which fall within the field of religion.

In such cases, it is well known that there are two slightly inconsistent attitudes. An expert, a man of trained value-judgment in morals, art, or religion, may express individual judgments, each by itself, which seem reasonable and sound; but when put together and systematized by logical technique, they may reveal inconsistencies. If you test his intuitive certainty over a wide field of questions, you will usually, as Socrates discovered, find him, in places, saying now one thing and now its contrary or contradictory. In oral examinations for higher degrees it is quite common for the candidate to become "rattled" and presently to be maintaining the precise opposite of his thesis. In the psychological laboratory, if you set yourself to compare colors or sounds or weights over a wide range, you usually find yourself saying something like "A is redder than B, B is redder than C, but A is not redder than C"—which involves an obvious contradiction. In matters of art and morality such inconsistencies are even more common.

On the other hand, persons with technical education often help out the weaknesses of their artistic or moral judgment by the systematic devices of logic or mathematics. They find, however, that logic and mathematics are a poor substitute for the fresh certainty which belongs to a more direct experience, like the experience of *sensa*. Their logic seems to prove one thing, but their artistic or moral feeling is all the other way. The judgments of lawyers are often at variance with the intuitive certainties of common sense.

Thus we realize that mixed propositions, which on the one hand contain *sensa* or *quasi-sensa*, and on the other hand enter the field of relations, in that they attempt to apply system to the *sensa*, contain elements which are heterogeneous, and mix no

better than oil and water. This inconsistency between direct sensory experience and indirect systematic construction provides a difficulty for realists. Some realists regard the *sensa*-side of experience as primary, and refuse to give it up in the face of a merely indirect and logical demonstration that two beliefs or convictions cannot be systematized. Like children, they persist in saying, "Give us both!" Others regard the *relation*-side of experience as dominant, on the ground that, though *indirect*, and thus presupposing direct experience somewhere, it covers a wide field and helps to correct an occasional mistake in some particular part of the field, even though this seemed for the moment to be directly certain. It is believed that we know far more, *indirectly*, than we know directly. The newspaper and the textbooks studied in college give us mostly *indirect* experience; and the more educated we are, the more *indirect* experience we can bring to bear upon a given case.

The situation is, however, not entirely satisfactory; and many realists are left in the position of Faust. They have studied and studied, but have become dissatisfied with indirect experience. It does not ring true or seem real. They feel the need, like Descartes or Locke, for making a new start and basing their judgments, in each case, upon something directly known and personally experienced, some "simple idea" of which they have no possible, probable shadow of doubt. In practice, most realists believe that the *sensa* and the simplest intuitive judgments, which seem self-evident, furnish them with such reliable starting-points. As C. D. Broad says,⁷ "The existence of *sensa* is absolutely certain, and those positive sensible properties which they seem to have, they certainly do have."

The aim of most realists is, starting with such undeniable certainties, gradually to build up a body of systematic knowledge, all certain, all objective, and all in accord with the teachings of physical science as to the nature of physical reality. Everything subjective, personal, and emotional is ruthlessly kept out of the picture, except in the systematic study of psychology from a be-

⁷ *Scientific Thought*, 1923, p. 390.

haviorist standpoint, where it has a certain place. The aim is to see things as they are, to apprehend reality as it is in its own nature, without fear or favor, and to form the self, and the self of all committed to realist influence, upon the reality so apprehended. Russell expresses it:⁸

Philosophy has value—perhaps its chief value—through the greatness of the objects which it contemplates, and the freedom from narrow and personal aims resulting from this contemplation. The life of the instinctive man is shut up within the circle of his private interests. . . . Unless we can so enlarge our interests as to include the whole outer world, we remain like a garrison in a beleaguered fortress. . . . If our life is to be great and free, we must escape this prison. . . . Enlargement of the Self is obtained . . . when the desire for knowledge is alone operative, by a study which . . . adapts the Self to the characters which it finds in its objects. . . . The free intellect will see as God might see . . . , calmly, dispassionately. . . . Contemplation makes us citizens of the universe. . . . Through the greatness of the universe which philosophy contemplates, the mind also is rendered great, and becomes capable of that union with the universe which constitutes its highest good.

Let us now take a closer look at *idealism as a philosophic theory*. In a general way, we all feel that there is something about idealism which we admire. Genuine idealists who are prepared to sacrifice the whole world to their ideals are comparatively rare; but most teachers have quite a touch of idealism about them, especially while they are still young and inexperienced in the ways of the world. The middle teens are the great time for the budding of idealism. If you look at a series of photographs of celebrities taken at different times in their lives, you will often see an openness to ideals obviously present in the photographs representing age fifteen or sixteen, and sometimes retained through life. Dr. Grenfell of Labrador is an outstanding case—but we all know of many such cases. They exist without doubt, and are very hard to explain in terms of realism or of pragmatism. They number among them some of the world's greatest

⁸ *The Problems of Philosophy*, pp. 244-250, highly condensed.

leaders in the fields of science, art, conduct, and religion, and also large numbers of quite commonplace men, women, and children. Most of us have a touch of idealism in our composition, even when technically we yield adherence to some other philosophic creed.

As a philosophic theory, idealism takes its stand upon the priority of mind and the self. It is we ourselves who set ourselves our own problems. The physical environment furnishes the occasion, the *milieu*. But when A sets himself the problem of making his first million by the time he is twenty-five, and B sets-himself the problem of constructing new and original solutions of musical difficulties in the form of symphonies and sonatas, while C sets out to train himself for the solution of problems in science or religion, and D chooses to loaf through life as best he may, it seems to the idealist absurd to regard the environment, whether physical or social, as primarily responsible. If we look back upon our own lives, we usually find definite places where we ourselves made the decisions which have placed us where we are at present, facing in the direction in which we are facing, and doing the peculiar things we have decided upon doing.

Similarly with the world of art, music, literature, and science in which we are at home. This world is not a natural phenomenon, growing out of physical reactions to physical stimulations. It takes a Newton and an Einstein to give us physics; the three B's—Bach, Beethoven, and Brahms—to give us new horizons in music, and a Shakespeare to give us the drama. These are characteristic creations of mind, and the best evidence that mind is something more than physical reaction to a physical stimulus. We live in a world created not only by our ideals, but by the ideals of others. The whole world of culture, invention, and discovery represents ideals in operation. We live in a world of ideas, rather than of facts.

Even the world of everyday living is a world of ideas rather than facts. It is fashion, rather than physics, which dictates what we shall eat, what we shall drink, and wherewithal we shall be clothed. It is advertised fruits and cereals which make up our

breakfasts, advertised cocktails and entrées which diversify our dinners, propaganda which fills our newspapers and magazines, and the ideal of keeping up with the Joneses which occupies so much of our lives. It has sometimes been said that we eat and drink labels. It is hardly too much to say that we eat, drink, and are clothed in somebody's ideas.

Finally, even in the realm of science, if we ask what it is we really know, we find it is the inferred consequences of our own hypotheses. The facts, the secrets of nature, remain secrets. We approach them by means of audacious guesses which work fairly well in practice, but, when looked at closely, turn out to be Professor So-and-So's hypotheses. The notion that we really know even *sensa* turns out, in the psychologist's laboratory, to be questionable. The "simple idea" with which the realist would start represents to the idealist a goal, an end-point, a *terminus ad quem*, not a *terminus a quo*. The realist's claim, that "we know, and we know that we know," seems the expression of a wish. If we only did! Life and science would be far simpler than they are, if we only did know, and did not have to grope our way precariously with hypotheses, statistics, and experiments. Here, too, we live in a world of ideas rather than of facts. All so-called knowledge is *indirect*. Direct knowledge is a dream, an ideal.

One other characteristic difference between realism and idealism. The realist, living, as he believes, in a physical world, tries to apprehend it piecemeal, here a little and there a little, gradually building it up into systems which he calls "science." The idealist, living, as he believes, in the world of mind or spirit, with its fundamental law of wholeness or unity, tries to apprehend by concentrating the whole mind, with its network of self-created points of view and categories, in this or that direction, and lives in a world of logically interrelated definitions and consequences. His knowledge is all indirect, knowledge by description, a self-projection of mind. He believes that all that he knows in the world around him is what the mind has itself created and projected: systems of mathematics, systems of esthetical ideals, systems of

ethical demands, systems of religious aspirations. For him, detailed fact is the very last thing he hopes to discover.

What are the characteristic difficulties of idealism? In the first place, common sense has always been a little shocked by the thought that we "eat, drink, and are clothed with ideas." It smacks of the Emperor of China's New Clothes, or Sairey Gamp's Mrs. Harris. Common sense feels that if a country has no natural resources, no coal, forests, or minerals, it has no great future in the world of nations, however idealistic its leaders may be. Ideals are a poor substitute for the physical energy upon which civilization seems to rest; and idealism thus looks a little like seeking refuge in the subjective world of the imagination and closing one's eyes to the hard facts of life.

In the second place, there is a technical difficulty. The idealist never succeeds in jumping off his own shadow. He is in the "egocentric predicament." He never manages to escape from himself into a world of independent reality. He lives with his own problems, his own hopes and fears, his own hypotheses; and however much he enlarges and expands the network of these, he never catches in that network anything not of his own weaving. John would like to sink himself in the love of Mary; but he is forevermore in love with—his own idea of Mary. William would like to feel that he is acquiring a place in the real world; but he is only building up a place in his own estimation. To many, idealism thus seems to culminate in solipsism. It is like a club which has only one member. He is president, secretary, treasurer, ordinary member, club waiter, porter, and cook. He is fair as a star, when only one is shining; but he must, at times, feel just a little lonely. But however lonely he feels, his attempts to create a world around him can never result in anything more satisfactory than playing both sides at checkers, or all four hands at bridge. As Russell puts it,⁹ "If I were a solipsist, I should have to suppose that I had composed the works of Shakespeare and Newton and Einstein, since they have entered into my experience. Seeing how

⁹ *The Analysis of Matter*, 1927, p. 201.

much better they are than my own books, I have been foolish to spend so much time composing with the pen rather than with the eye." To be the All and the Whole thus has its penalties. If the realist can never escape from the world, the idealist can never escape from himself. Which is the more to be pitied? —

Let us now take a closer look at *pragmatism*. The pragmatist believes that we are essentially biological and social organisms, acting always only on biological and social stimulation, living from moment to moment and from problem to problem. Life is just one thing after another, and it is never systematic and never abstract. The way in which physicists regard reality, as matter in motion according to a system of fixed laws, seems to pragmatists a one-sided and abstract fiction, suitable for the quite one-sided purposes of physical scientists, but unsuitable and misleading when accepted by philosophers as the basis for life in general. To pragmatists, the sciences of psychology and sociology in all their branches seem to present a picture more in accord with the concrete nature of our experience than does mathematical physics; and pragmatists consequently insist that their own view is more realist than physical realism. They call themselves, accordingly, *concrete* realists, in contrast with the one-sided, *abstract* nature of *mathematical* physics. They avoid also the systematic way of linking together past and future which characterizes the historical point of view. Their gaze is fixed upon the problem of the moment, and they look toward the immediate future. For the past, they let bygones be bygones. Tomorrow is always another day, with its own problems and their own methods of solution.

The idealist looks before and after, and constructs a transcendental ideal which is beyond our human powers of realization. He sees before him a transcendental self facing a transcendental world, and either creating or absorbing it. The pragmatist objects that what transcends the actualities of human experience, here and now, is not itself actual, but represents a figment of the imagination. He argues that it is mischievous to take fictions and

abstract ideals as though they were facts. According to Kallen,¹⁰ "Such philosophical reconstruction, in the lives of individuals . . . is paranoia. . . . Applied universally in the daily life, it is a madness. . . . Kept in its proper sphere, it is a fine art. . . . As example of these somnambulisms, any idealistic system will do, from Kant to Bradley."

The only ideals which mean anything valuable are the ideals being realized here and now. To finish reading or writing this book, to take another step toward solving this particular problem, to prepare this meal, to make this social contact, to put through this business deal, here and now; these are ideals which can be realized. The pragmatist, therefore, objects to the transcendentalism but not to the idealism, of the classical representatives of idealism. Dewey says,¹¹ "Professed idealism turns out to be a narrow pragmatism. The time has arrived for a pragmatism which shall be empirically idealistic, proclaiming the essential connexion of intelligence with the unachieved future."

The pragmatist thus calls himself an *empirical idealist*, and believes that his view is in essence more truly idealistic than dodging the problems of the here-and-now and retiring into the daydreams of transcendentalism. The difference is illustrated by the following passage from Charters:¹² "Traits and rules are abstract and general. . . . An ideal can influence conduct only in so far as it is applied by the agent to specific situations. The pupils who listened to the lecture on honesty obtained from the speaker no information about what to do . . . when they found money, when the ticket collector missed them, or when they had a chance to look at a seatmate's paper on a formal examination. Only when the ideal of honesty is applied to concrete situations such as these, can it lead the children in the path of honesty."

It is further characteristic of pragmatists that they reject the older beliefs in Truth (with a capital T) and Reality (with a

¹⁰ H. M. Kallen, "Value and Existence in Philosophy," in *Creative Intelligence*, 1917, pp. 436, 441, slightly paraphrased.

¹¹ John Dewey, "The Need for a Recovery of Philosophy," in *Creative Intelligence*, p. 29.

¹² W. W. Charters, *The Teaching of Ideals*, 1929, pp. 106-107.

capital R) as fictions which are mischievous. They believe that beings with nervous systems, in interactivity with their biological and social environment, act rather than contemplate, and produce results rather than just sit and think and understand. Such actions occur as the attempted solution of problems which stimulate; and some of them "work," i.e., effect concrete results which abolish the problem for the time being. Such results are relative to the particular conditions of the particular problem, to the here-and-now, and cannot be universalized into parts of an abstract pattern called "Absolute Truth." We do not attain any insight into the secret laws which govern nature. We merely interact experimentally with the environment, and hit upon some happy guess or hypothesis which happens to work. Such hypotheses, when formulated in technical terms and reduced to systems, give us the content of the sciences; but the result is not a system of Truth, but rather a collection of techniques: a number of experimental solutions which hold good for particular problems here and now. As A. W. Moore puts it:¹⁸ "What Newton did is a much better source of information on the part hypotheses play in scientific method than what he said about them. . . . Hypotheses are the joint product of all the beings and operations involved in the specific situation . . . (including all the experimental material and apparatus). . . . How necessary such continuity is to experimentation . . . continuity between the logical demand of the experiment and all the materials and devices employed in the process of the experiment. . . ."

To systematize and universalize such individual solutions is to go beyond their proper application, and the result may be, and often is, dangerously remote from the actual concrete facts. To go further and construct a theory of Truth, with a "criterion" or touchstone of Truth, such as consistency, is to lose oneself in hopeless abstractions. What works is what solves a particular problem. The methods which solve different problems are often not consistent with one another. But provided they solve their

¹⁸ A. W. Moore, "Reformation of Logic," in *Creative Intelligence*, pp. 109, 117, slightly condensed.

individual problems, that is all we need. To look for something further, such as "consistency," is a mistake and leads to a number of unnecessary self-made problems. What are sometimes called the "problems of philosophy" are all of this type: unnecessary puzzles created by going beyond the concrete, biological or social action-situations, and attempting, by an arbitrary standardization and systematization of methods, to construct a spider-web which will function upon all conceivable occasions. To quote Dewey:¹⁴

Philosophic thinking is caught up in the actual course of events, having the office of guiding them towards a prosperous issue. . . . Until it frees itself from identification with problems which are supposed to depend upon Reality as such, or its distinction from a world of Appearance, or its relation to a Knower as such, the hands of philosophy are tied. Having no chance to link its fortunes with a responsible career by suggesting things to be tried, it cannot identify itself with questions which arise in the vicissitudes of life. Philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of men.

So too with the problem of Reality, of which the metaphysician is supposed to be in quest. All concrete problem-situations are real. But each is individual. They do not have a common structure, something which can be abstracted from the particular situation and reduced, without loss, to general principles. It is like color. Color is always individual. It is red, yellow, blue, or green. If you try to abstract from the redness, blueness, etc., and construct a theory of color-in-general, you find you are constructing a theory which leaves out the red, blue, green, etc., i.e., leaves out the color itself. It is essential to each of our experiences to be particular in this sense. And if you try to construct a theory of "Reality" which leaves out the particularity of each experience and its refusal to melt into other experiences, you are constructing a theory of Reality which leaves out the one essentially real thing: its uniqueness. All such problems, then, with which real-

¹⁴ "The Need for a Recovery of Philosophy," in *Creative Intelligence*, 1917, p. 65, slightly condensed.

ists and idealists busy themselves, are unreal problems, unnecessary puzzles. They cannot ever be solved because the premises of the problem are set falsely. Only concrete, particular, here-and-now problems can be solved;¹⁵ and such solutions are not contemplations, but actions, individual, unique, and non-universalizable.

If we ask, what is the weakness of pragmatism, we are informed by its adherents that it has no weaknesses. It consists of simple statements of relevant fact, and is strong, not only in criticism of the older views, but also in developing forward-looking, practical attitudes which are especially needed today. But to non-pragmatists there are a number of queer inconsistencies about the position which seem to constitute difficulties.

In the first place, while denying the validity of systematic theory as such, and substituting action for contemplation, pragmatism is itself written up and discussed in terms of consistency, system, and relevance to independently known fact. There is thus a certain inconsistency between the content of pragmatism as a theory, and its presentation as a theory. To have a *theory* that there can be no theory is a little trying to anyone with the least vestige of regard for not contradicting himself. The only answer offered to this criticism is that it affects the expression of the view in words, rather than the view itself. Action is not theory; but when it expresses itself in words, as it enters the philosophical arena, it uses the technique and the weapons of theory for polemical purposes. However, what puts on the armor is different from the armor it puts on. And behind all its critical and consistent words, pragmatism remains essentially pragmatism: not some new kind of "Truth," but action, experimental reaction to stimulus, a social and industrial movement forward. It can be appreciated in action, but cannot have its value exhaustively expressed in words, or, indeed, in any theoretical exposition. To appreciate it properly, however, we must look at it, not as it appears on the enemy's ground, clad in the enemy's armor, but as it is in itself, as positive, forward-looking social action.

¹⁵ Cf. Dewey, *How We Think*, pp. 46-47.

Other objections are largely variations of the above objection. Pragmatism contends that there is no such thing as Truth or Reality, and yet expects its own position to be accepted as true and as in accordance with the reality of experience. There are many similar paradoxes about pragmatism as expressed in words. The truth seems to be that a realist, *from his own standpoint*, can refute pragmatism to his heart's content. He can take the pragmatist's words and show that each significant sentence seems to presuppose an independently existing reality apprehended by the pragmatist's mind. He can show that behind the biological and social reality accepted by the pragmatist there is physical reality generally; and he finds it hard to see how any man of intelligence can refuse to accept the plain, i.e., realist, implications of his own language. So too the idealist can show that the empirical idealism of the pragmatist is but a step upward on the ladder which starts with individual experience and does not end until the last *salto mortale* which reveals the omnipresence of the Absolute. That is to say, each, *from his own standpoint*, can refute the pragmatist with ease. But the pragmatist sticks to his own point of view and, from that, can equally well refute both idealist and realist. Our final conclusion is thus: that the three standpoints are distinct and independent ways of regarding experience, each for itself being entirely satisfactory.

TOPICS FOR DISCUSSION

1. Could philosophies be classified on some other principle, e.g., as (a) the scientist's type of philosophy, (b) the business man's type, (c) the politician's type, (d) the moralist's type, (e) the artist's type, and (f) the religious man's type? Or is the classification suggested in the text more fundamental?
2. How would a realist, from his own standpoint, refute the position of idealism?
3. How would a realist, from his own standpoint, refute the position of pragmatism?
4. How would an idealist, from his own standpoint, refute the position of realism?

5. How would an idealist, from his own standpoint, refute the position of pragmatism?
6. How would a pragmatist, from his own standpoint, refute the position of realism?
7. How would a pragmatist, from his own standpoint, refute the position of idealism?
8. Use any one of the above "refutations," and show how the school apparently refuted could reply.
9. Look up any three dictionary definitions of "philosophy" and "philosopher," and discuss them from each of the three typical points of view. (E.g., "A philosopher is a man who explains everything in terms of reason," "A philosopher is a lover of wisdom," "A philosopher is a man who shows calmness in trying circumstances"; "Philosophy is love of knowledge, especially that which deals with ultimate reality, or with the most general causes and principles of things.")
10. Discuss in detail some of the inconsistencies typical of our moral and esthetical judgments (a) from the realist, (b) from the idealist, and (c) from the pragmatist standpoint.
11. Can there be, from any of the three points of view, such a thing as "direct" knowledge? Or is it not implied, in talking about "indirect" knowledge, that we must have "direct" knowledge somewhere?
12. Is there any way out of the "egocentric predicament," which does not give up the notion of a real "self"?
13. How far are the two sides of pragmatism, (a) its concrete realism, and (b) its empirical idealism, consistent with each other?

EXERCISE

Identify the following passages as specifically (1) realist, (2) idealist, or (3) pragmatist:

- a. Philosophy is not a free play of the creative imagination loosed from all mundane reference. It is a unity within the facts, the unity of the facts. And these facts are the concrete whole of experience, and conspicuously though by no means pre-eminently that domain that is called the physical world. (E. B. Holt.)
- b. Why does Spencer call out so much reverence? Simply because we feel his heart to be in the right place philosophically. His principles may be all skin and bone, but at any rate his books try to

mould themselves upon the particular shape of this particular world's carcase. The noise of facts resounds through all his chapters, the citations of fact never cease, he emphasizes facts, turns his face towards their quarter; and that is enough. (W. James.)

- c. Facts are only data; that is, are only fragmentary, uncompleted meanings, and unless they are rounded out into complete ideas—a work which can only be done by hypotheses, by a free imagination of intellectual possibilities—they are as helpless as are maimed things and as repellent as are needlessly thwarted events. (J. Dewey.)
- d. The behavior of *homo sapiens* is almost as predetermined by his culture mass as a jack rabbit's is by his instincts. The masses do not think for themselves, except to a negligible degree. They only echo. The problem of public education is, therefore, to load the dice so that upon a throw public opinion will fall with the same faces up as informed and expert opinion. This involves a radically different pedagogy, especially for the duller half. The duller masses must be indoctrinated through a *memoriter* drill in epigrams, slogans, couplets, etc., which capsule the best wisdom of the age. With the brightest, that indoctrinization must be accompanied with explanations, and with the development of a critical, constructive, and creative attitude of mind. With the average minds, a compromise or combination of these two methods is required. (Ross L. Finney.)
- e. My principal aim in the establishment of a teaching body is to have a means for directing political and moral opinions. Religion is an important matter in an institution for girls. It is the surest guarantee for the mothers and for the husbands. Bring up women who believe and not women who reason. The weakness of women's minds, the fickleness of their ideas, their destination in the social order, the necessity for a constant and perpetual resignation and for a sort of indulgent and ready charitableness, all this can be obtained only through religion, through a charitable and gentle religion. (Napoleon.)

FOR FURTHER READING

- Hocking, W. E., *Types of Philosophy*, Ch. I.
 Hoernlé, R. F. A., *Matter, Life, Mind, and God*, Lect. I.
 James, William, *Some Problems of Philosophy*, Ch. I.
 ——— *Pragmatism*, Ch. I.
 Leighton, J. A., *The Field of Philosophy*, Introduction.
 Perry, R. B., *Present Philosophical Tendencies*, Chs. I-II.

Chapter II

THE NATURE OF EDUCATION: (a) REALISM

Education Defined.—The word "Education" is used, sometimes in a wider, sometimes in a narrower, sense. In the wider sense, all experience is said to be educative. The bite of a mosquito, the taste of a watermelon, the experience of falling in love, of flying in an airplane, of being caught in a storm in a small boat—all such experiences have a directly educative effect upon us. The child educates his parents, the pupil educates his teachers, the dog educates his master. Everything we say, think, or do, educates us, no less than what is said or done to us by other beings, animate or inanimate. In this wider sense, life is education, and education is life. Whatever broadens our horizons, deepens our insight, refines our reactions, and stimulates thought and feeling, educates us; and there is no experience in which we are either active or passive, which does not produce in us effects which are educative, in this sense of the term.

In the narrower sense, "Education" is restricted to that function of the community which consists in passing on its traditions, its background, and its outlook, to the members of the rising generation. In the simplest communities, every member of the older generation stands *in loco praeceptoris* to every member of the younger generation, and the children are educated by absorbing the family and group ideas from the social environment, without formal instruction of any sort. In more highly evolved communities, the function of educating the younger members becomes more specialized, and is intrusted to a specific caste, with buildings, books, and instruments constructed for this specific purpose. In the narrower sense, education becomes, in practice, identical with "schooling," i.e., formal instruction under controlled conditions.

As soon as specialization evolves the school, with its pupils and teachers set apart from the regular life of the community for at least a portion of the working day in order that they may occupy themselves with preparation for fuller membership within the community, the school tends to develop a character of its own, with traditions, a background, and an outlook suited to the immature and protected. Most schools are a little formal, a little academic, a little cut off from the life around them. Many develop a slight superiority complex and look down upon their social environment. But almost all inculcate definitely recognizable traits upon their scholars. Eton and Oxford leave their stamp upon all Etonians and Oxonians. A Harvard or Princeton man would find it hard to disguise himself as a Middlewesterner from Wisconsin or Minnesota; and "Dear old Yale" is, to all its alumni, something more than a theme for a song or yell. In fact, the tendency of most schools is to prepare scholars primarily for life in the smaller, rather than the larger, community: for life in the school itself. That is why graduation into the life of the large community comes as such a wrench to the scholar who has learned primarily to adapt himself to the shibboleths and standards of his own small and protected group; and that is why so many a campus leader simply disappears from view in the large mass of his fellow citizens, *spurlos versenkt*, and is never heard from again.

Once schools begin to develop specialized traditions and outlooks of their own, they may diverge rather sharply from the general outlook of the wider community. The high school in the United States may be "The People's University," in which American boys and girls learn primarily to be American men and women. But one place may try, for a time, to develop experts in introspective psychology or in geography; another place may specialize in mathematics and science, much as a barbers' college turns out beauty-parlor experts, and a chiropractors' college turns out expert spine-adjusters: all without much reference to the community demand. Part of the troubles of Mother India are said to be due to the number of "failed B.A.'s" who have been

trained out of their own class and into no other. Part of the troubles in many countries are said to be due to the numbers of LL.B.'s for whom there are no natural openings.

Owing to these differences between education in the wider sense, as developing life, and education in the narrower sense, as preparation for life in a definite community, which may be the small school community, it is possible to be well schooled without being wisely educated, and wisely educated without being well schooled. Charles Darwin was regarded as almost a dunce in school, and so was Robert Clive. On the other hand, Lord Chesterfield's son and the younger Pitt were most elaborately schooled, but were comparatively unimportant in the public life of their country. Where, however, as in our own civilization, there is a great body of accumulated tradition and technique to be transmitted, it is very rare for a man to be regarded as outstandingly well educated in the wider sense, who has not also been well grounded in the work of the schools.

So far, in words at least, realist, idealist, and pragmatist are in agreement. But as soon as we leave generalities and come down to cases, the agreement ends. There are, in the business of education, so many persons whose interests are to be considered that it is difficult, if not impossible, for any school or any writer to do justice to all of them taken together, without confining himself to vague generalities. If we wish to be clear and to make statements which mean something when applied to details, we must therefore consider one person at a time and see what education means from his standpoint,

There is the *pupil*, whose interests, according to all writers since Rousseau, are accepted as dominant. There is the *teacher*, a *sine qua non* in all civilized education. According to almost all authorities, it is the teacher who makes the school what it is in detail, and the teacher who really does the actual work of educating. Then again, there is the *parent*. Pupils are usually controlled by some parent or guardian, and parents wish to get for their children the best which the school has to offer. They accordingly have a direct interest in the work of the schools, and seldom

hesitate to give effect to their wishes in dealing not only with their children, but with teachers, principals, and school board members.

In the fourth place, there is the *administrator*, the principal of the school or the superintendent or inspector of education for a certain district. Such persons have a great deal to say about education, with tongue and with pen; and if you asked one of them who is most important in education, the pupil, teacher, parent, or administrator, he would seldom have to look far to give a clear and distinct answer. The Minister of Education is often, of course, a politician, while the Deputy Minister is the real expert. But even so, Ministers of Education often exert an influence upon the curriculum and detailed arrangements of the school system which extends into the work of the classroom.

In the fifth place, there have always been persons of influence in the community, "moving spirits" or *knights-errant of education*—men like Herbert Spencer, for instance—who, while holding no official position in connection with the school system of any country, influence and direct the school systems of many countries via the ideas which they formulate in their writings and lectures. Such persons are sometimes elected to school boards and deal with the work of administration more directly; but as a rule their influence is less direct. The ideas they formulate influence the board, and in this way control much of the work of the administrator.

Finally, there is the general *community*, represented occasionally by the school board, but also by the local legislature, and particularly the local and national press. All these persons, or groups of persons, have their special backgrounds and outlooks, and exercise their rights to be considered in matters of education. As their ideas are frequently diverse, and sometimes diametrically opposed, we shall, in the interest of clearness, keep them as separate as may be, even when discussing the position of realism, of idealism, and of pragmatism.

The Realist Pupil.—The pupil with a realist background and outlook approaches the business of "getting an education" with certain very definite ideas and demands. What he looks for is

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objective information objectively expressed. He expects his teachers to know the subject matter, and to retail it to him clearly and distinctly. He expects them to keep themselves, with their feelings, their likes and dislikes, and everything about them which is subjective, out of the picture. When he attends a class in physics, he expects the whole period to be devoted to physics. He does not expect or desire that the lecturer should expatiate for twenty minutes or so upon the evils of cigarette-smoking or unpunctuality, or upon the virtues of docility and silence in the classroom. When he attends lectures on human physiology, he does not expect to be compelled to listen, for a portion of each period, to the lecturer's personal opinions on theological subjects, or about the higher education of women.

But his real *bête noir* is the gifted *raconteur* who can never resist an opportunity to retail (for the *n*th time) his best jokes, so that the subject matter disappears in a mist of airy persiflage. Almost as bad, in his eyes, is the pedagogic expert, who regards each class meeting as an occasion for exhibiting his mastery over "method," and who can never let the subject speak for itself but insists upon exhibiting himself always on the stage as the Great Teacher, the Master of the Socratic Method, or the Herbartian Method, or what not.

What the realist pupil looks for is authoritative, because objective, information, very simply expressed; and he would be well satisfied if all teachers, with their unfortunate personal vanities and weaknesses, could be abolished, and their places taken by gramophone records or a radio voice, talking like a junior encyclopedia. He understands that certain courses are actually given in this way, and he wishes that more could be so given. He would like to see the teaching, as well as the examining, completely depersonalized, so that nothing could come between himself and the desired information, and he would not have to become entangled in the likes and dislikes of a whole mass of people whose subjective reactions do not interest him, except incidentally.

As far as textbooks are concerned, the realist pupil demands the latest information available, expressed as simply and clearly

and as systematically as possible. The graces of authorship, the pedagogical dodges of psychologists, the self-expressionism of professorial egoists—such things are not for him. What he looks for are books which let the subject matter speak for itself as objectively and completely as possible. The subjects which especially interest him are the sciences which deal with nature: physics, chemistry, zoology, and botany, with just as much mathematics and language study as is necessary for understanding his subjects. If possible, he never reads books more than five years old; and, unless he is studying history or sociology, he does not consider the past at all. As he sees it, the proper study of mankind is nature, and the proper questions to ask are *What* and *How*. Poetry, painting, music, and the rest of the arts are, in his eyes, like politics and everything else concerned with the “political animal,” man. The study of them, except in so far as the anthropologist takes a strictly objective interest in them, is a plain invitation to lose oneself in a morass of subjectivity; and to ask questions like *Why* or *Cui bono* is to open the door to opinions which are without ascertainable basis. Such opinions can be compared, classified, and reduced to statistics; but to look for any kind of “truth” in them is pure waste of time which might be spent profitably in the pursuit of natural science.

As to foreign languages, Greek and Latin stand obviously condemned by their antiquity and pre-scientific character. French and German can and should be studied only so far as is necessary to understand (and possibly to write) scientific papers and textbooks in those languages. But the average German professor's love of Goethe, or the French professor's love of Balzac or Anatole France, is as exasperating to the realist pupil as the English professor's love of Shakespeare or Milton. The pupil, in fact, almost despairs of getting the professor to comprehend his point of view. He does not care a snap of his fingers about French as French or English as English. He does not want to read the works of dead and gone worthies who were not themselves scientists of the realist stamp, and who seem to him the apotheosis of subjectivism. Languages are of value to him only in so far as they are the

medium in which scientific knowledge, not otherwise available to him, has been expressed. (Textbooks, methods, and teachers, whose whole idea is to prepare him to plunge into poetry and literature rather than science, are, in his eyes, the greatest mistakes of the whole school system. He would like to see texts, subjects, and teaching oriented wholly toward science and the scientific point of view, with simplicity and objectivity as the watchwords and with knowledge of relevant fact as the sole controlling aim.)

(So far as parents, administrators, and the community are concerned, the realist pupil is of the opinion that parents should be seen but not heard, and that all concerned should see that the pupil gets what he wants from the school system.) But he wishes them to work as good machinery works—silently. Teaching, as he sees it, centers around the pupil, whether in classroom, laboratory, or library; and remoter questions of public policy seem to him so remote that he never thinks of them at all unless they are forced upon his attention. Provided that he gets from the school the objective knowledge of which he is in quest, and the control of the appropriate laboratory techniques, he is, as a realist pupil, completely satisfied.

The Realist Teacher.—The teacher whose background and outlook are realist in tendency is something of a dual personality. As a realist, he agrees with every demand of the realist pupil. He too believes that science is the way, the truth, and the life. He feels that reality should write the textbooks and dominate every detail as well as every principle of the teaching. His aim is to be the voice of science, clear, distinct, systematic, and—thoroughly impersonal. There is no such thing as specifically Buddhist or Christian mathematics. There is no such thing as French or German physics. There is no such thing as poetic or musical chemistry. Knowledge is one and universal. It speaks all languages and is impartial toward all religions.

It is his aim to let knowledge and fact so sink into his brain and nervous system that he becomes entirely imbued with their spirit. He ceases to be John Smith and becomes the voice of

physics or chemistry, speaking in the classroom to ears which are open to that voice. His supreme virtue is truth, and his most cherished emotion, reverence for fact. The one thing worth doing is to make discoveries in his chosen field, and then to communicate to others the discoveries he has made. His greatest thrill is the Eureka! with which he greets a successful experiment; and he finds his full reward in becoming a servant of impersonal science.

But on the other hand, as a teacher, the realist knows that it is not his business to go around making discoveries. If he is to communicate what he has discovered and what others have discovered, he cannot just let the facts speak for themselves. As a teacher, he has studied educational psychology and has learned, what is indeed true, that information cannot be handed out to all and sundry, with the expectation that it will be equally intelligible to all. He cannot speak like the encyclopedia, and add, in the style of Dr. Johnson, "I have found you an argument; I do not profess to find you an understanding." It is his business, as a teacher, to assist his pupils to an understanding. Even encyclopedias are not put into the hands of the very young or the uneducated. There are "child's books of knowledge," and various other "popular" *rifacimenti*, to water down the truths of science to fit special classes of hearers. What will do for a man of sixty will not do for a child of six, and rarely for a youth of sixteen. As a teacher, then, the realist has to have studied child psychology and adolescent psychology, and has to adapt his material to the interests characteristic of his pupils. If he is to be successful, even along realist lines, he must humanize his science; for, if left to itself, the subject means one thing to A, and another thing to B.

There is an experiment which consists in reading to a large class of university students three passages: one from Milton's prose, one from Gibbon's *Decline and Fall*, and one from a scientist's description, in visual terms, of an experiment expressed in graphs. The students are required to write down in their own words the gist of each passage after it has been read to them once, without any further explanations. It is found that, among two hundred, there are few indeed whose "notes" indicate complete

understanding of all three passages; and fairly few who agree with one another as to the essential meaning of what they have heard. In the same way, at a faculty meeting or at a national convention of teachers, who has not observed the audience coming away from a lecture with very different opinions as to its intent and meaning, as well as in respect of its value?

The realist teacher thus finds himself compelled, as a teacher, to offend against his own realism. He has to treat his subject as so much "material" to be worked over and altered, emphasized here, passed over lightly there, translated into terms which will appeal to his hearers, with due regard to their natural subjective bias. The material may be fundamentally objective, but it has to be presented in ways which are subjective rather than objective. For one pupil who would appreciate a rigidly objective presentation, there must be some twenty who would be bored, or at least would misunderstand. If an objective textbook were converted into gramophone records or into a radio voice, not only is there no evidence that it would be understood by all hearers, but all teaching experience is against the idea. That is why, where a subject is taught to a large class by lectures, there are usually small "quiz" sections in which discussion, by question and answer, is used to make sure that the pupils do grasp the essential points. Repetition of the *verba magistri*—that last refuge of the puzzled student—is no evidence of understanding. It is evidence only of rote memory; and even the realist teacher is well aware that experiments indicate a slightly negative correlation between intelligence and a purely rote memory.

And the realist teacher is in a further difficulty. As a realist, he likes to sink his personality in objectivity, in making discoveries in his particular science. As a teacher, he is compelled to spend much of his attention in catering to the subjective side of his pupils; but he is further expected, in so far as he is a teacher, not to make discoveries himself, but to assist others to make them. He is expected to direct his pupils to techniques which they can use and problems which they can solve; and the results, while usually expressing some degree of obligation to the teacher,

are accepted as legally the student's own discoveries. And, in a way, they *are* the student's own discoveries. It is by making such assisted discoveries that a student learns gradually to stand on his own feet and to proceed further along the path by himself. The realist teacher is thus in the paradoxical position of having to assist others to be realists, to make *his* discoveries, to try out his techniques and solve his problems, while he, as a teacher, has to be content to sit back and receive whatever meed of half-acknowledgment they may see fit to offer him.

This contrast between the two sides of his nature, the one demanding personal research in his science, and the other demanding that he shall sacrifice research to training others, is very real in the life of the realist teacher, and provides a problem to which there is no easy solution. Some act primarily as realists and attain to the honors which await discoverers and writers, passing on to their students the lesser and more laborious pieces of research. Some even, as heads of "schools," publish works incorporating the results of their students' detailed researches, and treat these, in so far as they are not restrained by lawsuits, as their own. These *research* teachers tend to receive the larger share of honor and to be sought, not merely as discoverers, but also as teachers, under the idea that he who knows may be able to teach, but he who provides no evidence that he understands how to research, cannot safely be intrusted with teaching research to others.

Thus we see that we have two groups of teachers: (1) those who organize and direct the research of others, and succeed in attaining recognition on "research councils," even though they themselves publish little which is strictly original; and (2) those who sacrifice themselves completely in the supposed interest of their students, and give up research for the privilege of teaching others. These last receive a smaller share of honor; and when a teacher announces that he is devoting himself to teaching rather than research, his colleagues often accept his statement as an admission that he is weakening in his realism and is slipping backward, away from the front-line trenches, dodging the real work

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of advancing, *in propria persona*, the cause of scientific knowledge.

The difference between research men and teachers is recognized in institutions. In some institutions, teachers are given to understand that they are expected to treat research as a private matter outside of the teaching session. During the session they are to give their whole time to their pupils, and not steal from them time which they devote to their own affairs. In others, teachers are given to understand that they are expected to be engaged upon definite research work, with periodical publication in their own fields; and that, if no evidence of such work is forthcoming over a specified period of time, their services will be dispensed with. Some institutions accept and keep both kinds, but give to the pure teacher smaller remuneration and longer hours of routine class work, while the research man is given greater freedom, in proportion to the quantity and quality of his "output."

In the teaching profession itself, although there is always a strong undercurrent of emphasis upon classroom teaching as the main business of the teacher, the general opinion ranks more highly those institutions and those teachers whose fame rests primarily upon the quantity and quality of their published researches, for it is this, rather than mere teaching, which makes them accepted as leaders in their own fields. At the same time, it must be admitted that a few outstanding teachers are accepted with the greatest respect for their ability and influence in the classroom.

The Realist Parent.—Parents with realist background, outlook, and sympathies want for their children much that the realist pupil wants for himself. They want their children to get, from the school, training in the methods of acquiring knowledge, and knowledge acquired by scientific methods. They expect their children to be brought abreast of what is already known, and equipped for making further discoveries of the same general kind, and, if possible, to receive a good start in the direction of making such discoveries. They further expect their children to become thoroughly realist-minded, consciously and willingly a

part of the physical world, prepared to accept their place in the natural order and to play their part in the actual world, the world revealed to us by science. They do not wish their children to be given false ideas, whether of the Mother Goose and Father Christmas type, or of the many types of propaganda in which ungrounded opinion masks itself as "economics" or "social philosophy." They do not want teachers to exert personal influence upon the children so as to stir them up in any direction not oriented toward science and factual knowledge and conduct. They wish their children to preserve the realist flavor of their minds pure and free from any adulteration arising from misguided school influences.

In fact, the chief difference between the realist parent and the realist pupil arises from the greater experience and greater power of the parent. He knows very definitely what he wants, and knows that it can be obtained, if he insists upon it. And he frequently has the power, as well as the desire, to insist, and to see that his child comes solely, or almost solely, under such influences as his realist mind approves. For the rest, he lets nature take its course, secure in the conviction that natural science leads to natural conduct, and natural conduct is the best conduct.

The Realist Administrator.—Administration consists mainly in two arts: the art of organizing material, and the art of organizing and leading men and women. Of the two, the ability to organize material, to reduce it to systems whose parts work together without undue friction, is the more widespread among human beings. Leadership, genuine ability to lead men and women and keep them willing and eager to follow, while almost universally sought, is not so frequently found. It is often thought that the leader can lead only where the group desires to be led. And this is partly true. But all experienced leaders discover, as Napoleon did, that leadership requires also the ability to apply "the whiff of grape-shot" at the right time. "Men are governed by fear rather than love," writes Aristotle; and it remains true that the bit, the whip, and the spur are at times necessary to the leader who is determined to stay in the saddle. The use of such weapons, however, requires

discretion and judgment, and that is why genuine leadership is comparatively rare.

(The arts of the administrator are not restricted to any one field. A good organizer who is also a good leader of men can be transferred from one government department to another, not only without loss, but with positive gain to each department of which he assumes the direction.) It is quite common for the different portfolios to be apportioned somewhat indiscriminately. "Stick close to your desks, and never go to sea, and you may all be rulers of the King's navee!" is a rule which holds good in business as well as in comic opera. That is why the president of a university may become president of a life assurance company or a nation, and why "business experts" are prepared to reorganize almost *any* business so as to make it more efficient. So too it has been found that the man who can lead an army can direct a university, and the man who can organize a political party can direct an educational system. Educational administrators are accordingly taken from the preacher's pulpit or the business executive's office, as well as from the teacher's classroom.

The *realist* administrator is, in background and outlook, characterized by fidelity to fact and by an almost religious regard for the methods and results of the natural sciences. He is in entire sympathy with the realist pupil and the realist parent. All his decisions as to the placing and teaching of pupils are dictated, not by arbitrary *ipse dixit*s, or by personal testimonials which may have been influenced by fear or favor, but by the impersonal results of objective experimentation. All the tests of which he approves are of the "objective" type, and all the records are kept upon cards which minimize personal and subjective factors. His teachers are as interchangeable as his blackboards, and almost as objective. His buildings and equipment are in accord with the latest experimental results, and every detail of the work done at his institution is governed by regard for scientifically demonstrated fact. It is his aim to turn out, not scientists—for he knows that not everyone who says "Truth, Truth" is worthy to enter this specialized field—but graduates ~~and~~ conditioned in their whole

outlook by the insight and the work characteristic of modern science.

As a realist, the incentives to which he appeals, when dealing with pupils, staff, parents, and community, are never the "intangibles," but always tangible rewards and penalties. Promotion and demotion, always with the thought of economic success or failure in the background, constitute his chief appeals. He never asks that anything should be done for his own sake or for dear old *Alma Mater*, but always for some tangible reward to the person doing the required deed. Those who do good work should—and do, in so far as he can make it so—receive due credit for the work done. Work done "for its own sake" means nothing in his eyes; and, as a realist, he tries to see that the rewards and penalties are precisely apportioned to the quantity and quality of sound realist progress being made. He particularly delights in those commencement addresses which demonstrate, with suitable statistics, that graduates of high schools, on the average, earn salaries definitely in excess of the wages earned by those who have only completed the work of preparatory schools, and that university graduates earn, on the average, considerably more, while post-graduates from the professional schools, whether "graduate," law, medicine, or technical science and engineering, rise to still greater economic heights.

The realist administrator is a little like the realist teacher, in that he has two distinct interests. He is interested in pedagogic research and in publishing, with suitable graphs, the results of such research. This is true, whether he is administering a normal school, a city or county system, a university, or a national system of education. His other interest is in organization and leadership, in accordance with the results of these objective researches. But in the case of the administrator, theory and practice go so closely hand in hand that he hardly feels himself to be a dual personality; and the difficulty between the research man and the practitioner scarcely comes, in his case, into the foreground.)

The Realist Knight-errant.—The knight-errant, in matters of

education, may be almost anybody. He may be a busybody, an influential personage, an after-dinner speaker, a politician, or a publicist. Sometimes he is even a teacher or ex-teacher. Nearly all the great names in the history of educational theory are names of men and women who, at least in relation to education, belong to the class of knights-errant. Huxley, Carlyle, Ruskin, Newman, were all knights-errant, although they were not all, by any means, specifically realist in background and outlook. But Locke, Pestalozzi, and Froebel also, in virtue of their writings at any rate, fall into this class. Such knights have been very numerous. Every community of any size has its full share of local worthies who joust and tilt for the causes they represent; and often the most influential are not those who are elected to positions on the local school board. In our own time, Wells, Shaw, Galsworthy, and Bertrand Russell are a few of the writers whose ideas are influential, although, with the exception of Russell, they have not been associated with detailed educational work in the classroom.

The *realist* knight-errant, having, as a rule, no particular educational responsibility and tending, somewhat easily, to leave responsibility to those charged with the detailed work of education, varies somewhat in the quality and degree of realism which he advocates. Comenius, with his almost naïve delight in the world of nature, varies enormously from realism in its modern forms, which emphasize, almost stoically, the inability of the individual to do more than apprehend and accept, with what grace he may, the laws of the physical universe and the rule of "what *is*."

The yet more modern forms, which make of the individual nothing more than a nervous system or the interactivity of nervous system and physical environment, are even more remote from the simple realism of the past. But the ideas of behaviorist psychology, with the thought that education is primarily a matter of physical "conditioning," and thus adjusting the child to an environment predominantly physical, are and remain influential in connection with the detailed work of the classroom and laboratory. In fact, since the War, realist theory has been so pushed

home by realist knights-errant that it forms, almost unconsciously, a large part of the accepted educational background and outlook.

The Realist Community.—The community always has a very direct interest in education. For the most part, it builds the schools, pays the salaries, and calls the tune. The community, as a rule, wishes to have the rising generation formed in its own image. A religious community wishes its children brought up to “study religion and good learning.” A scientific community wishes its children brought up in a scientific atmosphere. An artistic community wishes its children to become artists. And a business community wishes its children to be given a “sound business education.” As a whole, no community is realist, in the philosophic sense, or idealist, in background and outlook. But our whole material civilization, especially since the War, seems, both in technique and in outlook, to be realist rather than idealist in tone. The insistence upon fact, upon objectivity, upon systems which will “work,” is of course partly opportunist and pragmatist; but the predominant current is undoubtedly realist; and, as Veblen says:¹ “The popular sentiment runs plainly to the effect that magnitude, arbitrary control, and businesslike administration is the only sane rule to be followed in any human enterprise. . . . Workday habituation under the stress of competitive business has induced a frame of mind that will tolerate no other method of procedure, and no rule of life that does not approve itself as a faithful travesty of competitive enterprise.”

The *realist* community wishes its children to be put into effective understanding and control of natural science, and into effective contact with things-as-they-are. It is the hope of the present-day community that the problems which baffle and sweep us along, more or less resisting, will yield to the systematic and scientific attacks of the next generation, when this has been adequately trained in the outlook and techniques of modern science. The modern realist community is thus in sympathy with the wishes and efforts of the realist pupil and the realist school to ground themselves upon actuality, upon objectivity and law,

¹Thorstein Veblen, *The Higher Learning in America*, 1908, p. 276

and to prepare to meet the world of fact upon its own territory and with its own weapons. It understands and appreciates the card index and the research department of the realist administrator. These look to the realist community like business and like the techniques which have made, of post-war life generally, the thing that it is.

(From the standpoint of realism, then, education in the narrower sense of schooling means "conditioning" the members of the rising generation so that their nervous systems take on an attitude of interest in, and conformity to, the world of fact; so that, as a result of their training in the atmosphere, problems, and techniques of science, they can interact, on equal terms, with the forces which make the physical, i.e., the real and factual, environment the thing that it is. The pupil gives himself up willingly to this process of objective conditioning. The teacher carries it through by the most approved psychological devices. The administrator keeps everyone's nose to the physical grindstone. And parents, knights-errant, and community look on approvingly.)

Just one further point requires to be mentioned. The realist community is itself in somewhat of a dual position. In subordinating itself to fact and science, rather than keeping the control in its own hands, it incurs a certain danger. It is easy to see that "art for art's sake" may become a queer thing. But physics for physics' sake, mathematics for mathematics' sake, may also go to unforeseen extremes. The realist who insists upon objective systematic knowledge in each field is, whether he knows it or not, joining hands with those who approve of Latin for Latin's sake. The teacher who becomes so much of an objective specialist that he turns out Latinists or mathematicians, independently of general education in the technique and outlook of modern science, is simply an extreme realist; and the community which has built up a thoroughgoing institute of applied realism may find that it has a Frankenstein on its hands. Departmentalism, objective technique, and the rest all make for efficiency in the realist sense; but they may also make for overspecialization, until the "educa-

tion" is lost sight of in the "conditioning." This is one of the characteristic dangers of realism in education.

TOPICS FOR DISCUSSION

1. Are educative efforts (in the broader sense) produced in us more effectively when we are active or when we are passive? Answer from (a) the realist, (b) the idealist, and (c) the pragmatist, standpoint.
2. *It is obviously possible to have education (in the broader sense) without schooling.* How far is it possible (a) from the realist, (b) from the idealist, and (c) from the pragmatist point of view, to have schooling without education?
3. It is believed, on experimental evidence, that there is a slight negative correlation between intelligence and rote memory. How then do you account for the belief, also on experimental evidence, that knowledge of fact correlates fairly highly with understanding of principles, e.g., in history, literature, and science? Answer from (a) the realist, (b) the idealist, and (c) the pragmatist standpoint.
4. List what seem to you the chief dangers of extreme realism in the classroom. How far are they "dangers" only from an idealist, or from a pragmatist, standpoint?
5. Can you think of further reasons why campus leaders sometimes disappear from view in later life, while other men and women, almost unknown in their schools or colleges, forge to the front?
6. Is it wiser, from the realist point of view, for the pupil and the teacher to read, not books, but only the current periodicals, in their chosen subjects? E.g., should the educationist read only educational *periodicals*, the scientist, scientific *periodicals*, the historian, history *periodicals*, and the musician, music *periodicals*? Does it make any difference in your answer whether you assume a realist, an idealist, or a pragmatist, standpoint?
7. Is it wiser in his own interest, (a) from a realist, (b) from an idealist, and (c) from a pragmatist point of view, for the teacher-in-service to devote himself to becoming a master in the subjects he teaches, or to devote himself to psychological self-training so as to turn himself into an efficient assistant to others (viz., his pupils), sacrificing his personal advancement to their growth?

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8. Name three well-known realist parents (men like James Mill, the father of John Stuart Mill), and trace their effect upon the education of their children.
9. Trace the effect, on the children in their classes, of three well-known realist teachers in your community.
10. Can you think of reasons, other than those suggested in the text, why genuine leadership, from (a) the realist, (b) the idealist, and (c) the pragmatist standpoint, is comparatively rare?
11. What special advantages are there for the teacher, in working under an administrator who has not been through the regular mill of classroom practice, but has been a business man, an army man, a churchman, or a politician?

EXERCISE

Are the following passages typically realist in tone, or are they rather the expression of a kind of idealism that goes beyond the facts?

- a. Italian political life needs command and organization and discipline. We had to crowd out from the intermediate school the negative and supercilious elements. It was indispensable to impose a new discipline in education to which everyone had to submit, and the teachers themselves first of all. I have willed that, in collaboration with the universities, departments of Fascist economics, of corporative law, and a whole series of fruitful institutes of Fascist culture, should be created. Thus a purely scholastic and academic world is being penetrated by Fascism, which is creating a new culture through a fervid and complex activity of real, of theoretical, and of spiritual experiences. (Mussolini.)
- b. How shall we guide education? By applying to this field of human endeavor the same forms of scientific analysis that have been successful in the mastery of the physical world. In various parts of the United States you can find every possible experiment being carried on. We are attempting to check those experiments in such a way that there shall survive ultimately only those experiments that can be demonstrated by careful analysis of results to be justifiable. We are trying by scientific methods to make our life adapted to our physical relations. (C. H. Judd.)
- c. Academic freedom lays a responsibility on the instructor. He should approach his task as a person of open mind, regardless of

facts, whether or not they support preconceived theories. We need fewer romanticists, more objective and less wishful thinking. (H. W. Chase.)

FOR FURTHER READING

Alexander, S., *Time, Space, and Deity*, Vol. II, Ch. VI.

Drake, D., *Mind and its Place in Nature*, Ch. XIX.

Laird, J., *A Study in Realism*.

Russell, Bertrand, *The Analysis of Matter*, Ch. XX.

Chapter III

THE NATURE OF EDUCATION: (b) IDEALISM

The Idealist Pupil.—The pupil with idealist leanings is very different from his realist brother. He is vague, shy, quiet, a little at sea, both in school and out of school. He does not know exactly what he wants. He is uneasily conscious of an inner impulse or nisus, but does not clearly envisage either its nature or its objective. He won't be happy until he does something, he knows not what. So he tries this and that, with shy but eager enthusiasm, never entirely satisfied, and yet not distinctly dissatisfied. He looks for goodness, beauty, and truth; but, unlike the realist, he looks for them in persons rather than in objective things. He is peculiarly sensitive to personal relations: relations with his parents, his family, his family friends, his schoolfellows, his teachers, his church leaders. He is a little given to hero worship, and to a dreamy tendency to see human beings with imaginary halos. If he were asked later what he had found most helpful in his school life, it would turn out to be the influence (often unconscious) of this or that teacher and of this or that comrade.

Aristotle says that God does not love us, but that we love God, and, because of our love for Him, we try to live God-like lives. The idealist pupil is a little like that. He will work well for this or that teacher, even for a teacher who is in charge of a different class; or it may be because he admires this or that older comrade—who is himself, perhaps, an indifferent student. What he gets from his teachers is not so much "objective knowledge, objectively expressed," as personal encouragement to press forward, in the direction of his nisus, still without really knowing in what direction it leads.

If he is asked, in later life, which teachers influenced him most,

it will prove to be the men and women of firm and vigorous character whose vitality was outstanding, quite independently of whether they taught sciences or arts, whether they were realist, idealist, or pragmatist in outlook, and even independently of whether they actually taught him in their classes or merely knew him outside school work. He felt drawn to such persons and, from association with them, felt encouraged to proceed upon his way. They seemed to answer the obstinate questionings of the *nisus* within him.

In the same way, in the books he reads, both in school and out of school, his interest is not so much in their factual content as in intercourse with the personality of the author. When he reads a systematic treatise upon physics or logic, he thinks how wonderful it must be to have so clear a mind; and he feels stimulated, perhaps, to go and do likewise. When he reads his Virgil or Cicero, it is their creative ability which he admires, and the way in which such writers can, with clearness and vigor, call into being a whole world of spiritual life. Such books call to the *nisus* within him to come and join them; and he feels toward all great writers, whether past or present, a sense of comradeship in spiritual adventure. He reads novels, not for their content, not for the story as such, but rather because in intercourse with their authors he is beginning to acquire, from somewhere within himself, a philosophy of life. It is the same with art and with every avenue of awakening experience. The *nisus* within him responds to their call, selecting everywhere those friends of the spirit with whom it feels itself most akin and who assist it most in its persistent gropings toward self-consciousness.

It is usually in the middle or later teens that the *nisus* breaks through to consciousness; and the idealist pupil then becomes aware that what he has been seeking all these years, in school and out of school, in an intercourse which is personal rather than objective,¹ is, after all, his own self. The first awakening is a

¹ Cf. W. C. Bagley, *The Educative Process*, 1913, pp. 223-224, especially: "The period of adolescence represents the best time for the development of ideals (—conscious guides to conduct, especially in novel and critical situations). . . . The personality of the teacher is of fundamental importance."

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sort of twilight consciousness, and it is only very gradually that he is sure that he is definitely awake. At first he tries to explore the avenues of the self, to become acquainted and at home in the realm of the subjective; but later on, he finds himself faced with the problem of the world of nature, the objective world, too, and he is compelled to come to some sort of terms with it. The first awakening is like religious conversion. It thrills and seems marvelous, like a ray of light which illumines all sorts of hidden recesses. It is gradually, and later, that the convert finds that he has to come to terms with the universal sunlight and the vast world which it reveals to him. As Bosanquet says:² "On the whole the finite intelligent being has the duty and position rather of coming to himself and awakening to his own nature and his unity with what we call, by an imperfect analogy, a greater mind and will, than of controlling the course of the world, or moulding it as an independent cause."

The realist adopts the hypothesis that the self is a kind of world, and that the world is something that one just understands. The idealist adopts the hypothesis that the world is a kind of self, and that the self is something he just understands. For both, "the world" is what is known in physical science. But for the idealist, physical science represents the mind's answer to a set of questions which the mind has set itself, in accordance with a set of standards which the mind has itself created.

From this standpoint, mathematics represents a projection, into the field of quantity, of the ideal demands of the self for order, system, and unity; and there is as much "science" in a subject of study as there is mathematics in it. "Observation" by means of the senses represents the merest starting point; and what the scientist attains to, as he passes from his starting point, is the system of postulates which satisfies the ideal demands of the self. Science is the orderly self-projection of the self, with its demands, in this direction or that; and what the individual scientist discovers is a fragment of the vast territory which falls within the *imperium* of the self. The *nisus* within him drives him for-

² *The Principle of Individuality and Value*, 1912, pp. 158-159.

ward to ask and answer all the questions which a self can ask;³ and the guiding feeling on which he relies assures him that, when all the questions are asked and answered, they will all form parts of a single system, and that system will constitute a living unity, the life of the mind or self.

For the idealist, then, "the world" is the "other" or the counterpart of the self: at first set over against it, but later seen to be, both in content and in form, identical with the creative urge or *nîsus* which is the essence of the self. Just as when we read a book or listen to a lecture or sermon, we feel within us critical standards which pass judgment upon what we read or hear, so too when we investigate the world of nature we develop gradually within ourselves critical standards which organize and unify and reduce to a system which is the counterpart of the self, whatever we are studying. Bosanquet says:⁴ "By logic we understand the supreme law or nature of experience, the impulse toward unity and coherence (the positive spirit of non-contradiction) by which every fragment yearns toward the whole to which it belongs, and every self to its completion in the Absolute." And just as we feel that it takes a self to understand a self, so we gradually come to realize that what a self understands is always a self, and, in the end, its own self. Ultimately, it is the ideal self which understands the ideal self; and such understanding is not something extrinsic and external, as it is for the realist, but is essentially spiritual growth, a development toward ideal selfhood.

If we wish to understand the ideal Sir Christopher Wren, we do not trouble to look up his dates and a list of his doings in some reference book. We look at St. Paul's, for there, if anywhere, he is to be apprehended. So, too, the essential Beethoven is in his quartets, sonatas, and symphonies; the essential Kant is in his three great *Critiques*; and the essential Shakespeare is in his greater dramas. It was in intercourse with their "other," the

³ Cf. Bagley, *The Educative Process*, p. 260. "The judgments that the pupil makes for himself and puts into systems largely through his own efforts are infinitely more valuable to him than those in which the thought-connections are supplied—in which the reasoning is done for him."

⁴ *Principle of Individuality and Value*, p. 340.

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world of architecture, of music, of philosophy, of the drama, that they grew into that approximation to the absolutely ideal self which makes them stand out as patterns and beacons, to stimulate and guide humanity along the pathway which leads to the solution of its problems. At the end of the rainbow, it will find—itself; and the self which it finds will be the ideal self.

What the idealist pupil demands, then, from his schooling—although his “demand” is felt only vaguely, as a rule—is contact with vigorous personalities, intercourse with vital selves, both in his teachers and in the subject matter studied. The facts and the objectivity, upon which the realist lays so much stress, pass him by. He does not feel their importance in anything like the same way. A large campus with beautiful buildings munificently equipped—such things he can enjoy and love; but he does not need them, and can quite well do without them. It is the inner life of the spirit which is essential to him; and what is important for that life is intercourse with other selves. That is why so many of the leaders in the world of the mind, in art, science, and religion, have come from small places with poor buildings and meager equipment, but with one or two personalities which have genuinely inspired the pupil to realize himself. According to Veblen,⁵ “For the advanced work in science and scholarship, the training given by a college of moderate size commonly affords a better preparation than is had in the very large undergraduate schools of the great universities.” Education means, then, for the idealist pupil, the growth and development of the self to self-consciousness, a consciousness of its standards, its ideals, its claims, and its life.

The Idealist Teacher.—The idealist teacher is identical with the idealist pupil up to a point; he differs in being more mature, more aware of himself and the world, and in directing his spirit to awakening the dormant powers of younger selves. The interest in intercourse with other selves, which characterized him as a pupil, characterizes him also as a teacher. But where formerly he needed vigorous, mature, vital selves to stimulate him to fur-

⁵ Thorstein Veblen, *The Higher Learning in America*, 1908, p. 126.

ther growth, here he obtains what he needs from contact with weaker, less mature, and less vital selves. To quote Veblen again,⁶ "Only in the most exceptional cases will good, consistent, sane and alert scientific work be carried forward through a course of years by any scientist without students, without loss or blunting of that intellectual initiative that makes the creative student." In helping them, he finds his own spiritual growth. (He needs them as much as they need him, but largely in a different way. To have them looking up to him keeps him on the upward path. To find himself needed stimulates him to do what he can to satisfy that need. And the sense of companionship in spiritual growth is very precious to him.) But as all spiritual growth is an inner growth which his pupils must pass through for themselves, he asks himself what, if anything, an idealist teacher can really do for his pupils in the way of educating them. The handing on of "objective information, objectively expressed," does not seem to him to be enough; for he doubts whether it is genuinely educative, genuinely productive of spiritual growth, apart from other influences. What is there, beyond this, which he can do?

He finds that he can help his pupils to self-education and self-development in three distinct ways. In the first place, he can help them by associating himself with them, by letting them see what kind of a person he is trying to be, as they work and discuss their common problems with him. In such intercourse, much is felt which is never explicitly stated, and idealism, where there is common participation in work and play, is catching. An idealist in association with youth will never lack for comrades and pupils, whether they are formally enrolled in his classes or not.

In the second place, he can help them to develop by seeing that the solution of every problem demands an effort on the part of their own selves. By never "telling" them, but asking questions which suggest where and how an answer can be obtained, he can encourage them to rely upon themselves and to think for themselves. This is the essence of the famous Socratic method, although more is implied in it than barely this.

⁶ *Ibid.*, p. 273.

In the third place, he can assist them by inducting them into the essentials of scientific method, of analysis and synthesis. He can, by his questions and discussions, let them see that many a problem which, as first met with *en masse*, seems insoluble, yields to treatment when broken up into smaller parts. *Divide et impera*, said the great Caesar; and the saying is also true of other than military problems. A Latin sentence, possibly by Caesar himself, is usually approached by pupils as a whole, and by a kind of guesswork, it being hoped that the interpretation and the original will coincide. Such guesses are sometimes correct, and, if the principle of "wholeness" is rightly understood, may always be correct. But as used by the average pupil, such guesses often lead astray. What Latin teacher has not met with such translations of *Frigidus in pratis cantando rumpitur anguis* as "The cold meadow-snake bursts into song," or of . . . *et odora canum vis* as "and a powerful smell of dogs"? By teaching the pupils to break up such sentences into their grammatical parts, to find the main verb first, then its subject, . . . and so forth, the teacher provides them with a technique which, wisely used, will seldom, if ever, fail them at need. By showing them that if they can read a hundred lines of Virgil in an hour, they can read a book a day and the whole *Aeneid* in a fortnight, he helps them to the conviction that all problems yield to careful treatment, and that there is always something reasonable to be done, and something which, at least in part, is in their own power. When they realize that analysis and synthesis go together, and that, in solving a part, they are also solving the whole, he has put into their hands a weapon whose usefulness is not restricted to the translation of Latin or to the performance of other school tasks, but is universal in scope and can be relied upon in every field of experience.

One other point. The idealist teacher soon becomes aware that not all his pupils are idealist in temperament. Some are obviously realist, and others obviously pragmatist. What is he to do with the non-idealists—try to turn them into idealists, willy-nilly? The answer is, of course, No. The teacher with any true idealism in him realizes that it is his business to help his pupils to become them-

selves, to develop what they have it in them to be. If they are potential idealists, well and good. He understands their problems and can help them in the ways indicated. But if they are potential realists, seeking for objective information and hoping that he will keep himself out of the picture, well, he can give them what they want. It is not difficult to pass on objective information, and it is easy to keep himself out of the picture. With his knowledge of what realism is and what it wants, it is easy for him to turn realist pupils into more mature realists, and the same is true, *mutatis mutandis*, in dealing with his pragmatist pupils. To confirm them in their pragmatism is, in many ways, the easiest of his problems as a teacher.

But while he realizes that it is his business to assist the idealist pupils to develop their idealist side, the realist pupils their realist side, and the pragmatists their pragmatist side, a slight difficulty arises from having all three types in the same classroom, studying the same subject under his leadership. It therefore becomes necessary for the idealist teacher to be a practitioner of many techniques, and to apply, in practice, a working compromise, partly objective and partly subjective, partly informational and partly problematic. The pupils of marked type will select from such teaching what their own nature calls for, and the rest of what he does will pass them by. It remains true that some of his pupils will be a little injured in their self-esteem by the parts which are "over their heads." But such wounds soon heal, and their infliction can hardly be avoided.

For the idealist teacher, then, as for the idealist pupil, education means inner spiritual growth, the development of the inner *nisus* toward selfhood, to self-consciousness and self-direction; after this it can safely be trusted to take charge of its own future development and growth.

The Idealist Parent.—This parent does not expect too much of the present-day school. 'He knows that, in spite of the card index and intelligence tests, the good old-fashioned insistence upon accurate knowledge is not what it was in his young days.' The teachers are pleasanter and the youngsters enjoy their school life;

but they tend to be a little weak in basic studies. Latin has fallen from its high estate, and even mathematics is not quite what it used to be. What he looks for, however, and indeed insists upon to the best of his ability, is growth in personality. And, somewhat to his surprise, the newer methods in teaching seem to be doing, for son and daughter, rather more in this vital matter than was done for him in the old days. He tries, as best he can, to make good the deficiencies in the content of some of the studies. But he admits that what to him is essential, the development of personality, is, at least in the school he selects for his children, given the place of importance which it merits. In spite, then, of an occasional grumble about the absence of thoroughness, he is, on the whole, satisfied with the success of the present-day school in what he, as an idealist, regards as essentials. His children may not know too much; but they are certainly being educated, i.e., are being developed along the lines of self-reliance, self-knowledge, and self-direction.

The Idealist Administrator.—The idealist administrator strongly resembles the idealist teacher in outlook as well as in background. He does not regard it as his business to make his institution a hot-bed of idealism, with every teacher and every pupil professing idealist sentiments on pain of official disapproval. On the contrary, he uses his powers to make each member of his institution more definitely the self that he has it in him to become. It is vigorous personality that he expects from his teachers, and enthusiastic cooperation that he expects from his pupils and their parents. He wants everyone to make the best of himself, and, so far as his powers extend, he sees to it that the school helps those who are helping themselves.

He has no particular ax of his own to grind, but he is there to see that the grindstone of education is kept turning for all who desire to keep their own edge keen. In his school, a realist can become more definitely realist, and a pragmatist be encouraged in his pragmatism. It is true that pupils with an idealist tendency will feel encouraged, by their association with him, to become more idealist: and it is true that he will himself be encouraged to

go on with his work when he experiences their loyal comradeship. But he has enough idealism in him to continue assisting a rising generation to its full growth, even where that growth is, as is sometimes the case, a growth away from him and the ideals which he holds dear, and in the midst of a community which may be largely realist or pragmatist in outlook. A community which could, with any propriety of language, be called *an idealist community* does not, as he well knows, exist anywhere on earth. And while, in a way, he does what an individual can to assist in making his own community a little more idealist, he knows that what he personally regards as the ideal community, which would pursue, not a new deal, but a new way of living, is hardly likely to make its appearance, except in very small groups, and even then only rarely.

TOPICS FOR DISCUSSION

1. What is meant by saying that "the world is a kind of self," in relation to (a) the home environment, (b) the world of books (including both literature and textbooks), (c) the physical environment, (d) the world of social or economic ambition, and (e) the realm of intellectual discovery or artistic creation? Would your answer be acceptable from the realist or pragmatist standpoint?
2. "What the self understands is always a self." How far is this true of (a) mathematics, (b) laboratory science, (c) history, (d) literature, (e) music or dramatics? Compare the idealist answer here with the realist and pragmatist answers.
3. Consider which teachers or comrades exercised most influence upon your own educational development, and try to formulate what it was about them which influenced you most.
4. Name three leaders in art, science, or religion, who have come from small places. How would you explain their development, in spite of their origin, from (a) the realist, (b) the idealist, and (c) the pragmatist, point of view?
5. The idealist teacher "has enough idealism to assist his non-idealist pupils to become realists or pragmatists." Does not this involve

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the idealist in a self-contradiction? Consider with concrete examples.

6. If the idealist administrator wishes his pupils to become themselves, and if he is convinced that a majority of his pupils are non-idealist in temperament, background, and outlook, should he not resign his position in favor of a non-idealist administrator who will be more in touch with the community and pupils? Or does he seriously suppose that an idealist can strengthen realists in their realism, better than could be done by a realist administrator?
7. Name three idealist teachers or administrators in the community, and trace their influence upon the pupils committed to their charge.

EXERCISE

Are the following passages idealistic in the transcendental sense, or are some of them specifically empirical, or even realistic in tone?

- a. It is of the very essence of mind to go beyond its limited and isolated form of existence, and to include what is necessary to complete and render consistent its own experience. Intelligence constantly looks outward, sharing in communistic fashion its own riches with others, and unhesitatingly appropriating the fruits of other men's labors. Intelligence is openness, participation, making possible the mutual sharing and conflict of minds. Intelligence is not a private endowment that the individual possesses, but rather a living principle which possesses him, a universal capacity which expresses through him the nature of a larger whole of which he is a member. (J. E. Creighton.)
- b. When the object is to discover the truth rather than to find a practical measure of agreement, and when each party to the discussion is loyal to his own conviction and at the same time open-minded to the arguments of his neighbor, the individual is likely to be carried beyond the limitations of his ordinary consciousness. (J. E. Creighton.)
- c. The nature of Mind is to be self-conscious, to be aware, as nothing else than Mind is or can be, of its own nature. The nature of Mind is better known to us than that of anything else, everything else being known to us only in the light of that knowledge and as being a lower or less developed form of it. The nearer world of what we call other minds consists of the many-faceted reflec-

tions of our own mind, and the remoter fact of external Nature itself is also but that Mind mirrored outside us. The whole Universe is the self-expression of Mind's nature to itself, and each reflection reveals in itself an otherwise hidden feature of Mind's own countenance. (J. A. Smith.)

- d. The knowledge that interests us truly, and is the only kind that is of any interest to us, is that of the particular and individual things among which we live, and which we can transform and produce incessantly, since we are not immersed in reality as in an external medium, but are one thing with reality, those particular and individual things which *are* the universe. (B. Croce.)
- e. Teachers are concerned in the improvement of human nature. It is a necessary article of their creed that human nature can change, and that such change can be effected by the contact of mind on mind, and by efforts designed expressly to achieve it. All institutions of culture have been based upon the inner conviction that the individual can grow in sentiments, tastes, aspirations; apart from some faith of this kind, the teacher's intercourse with his pupil becomes repulsive. We examine our pupils' endowment, we modify their environment, not as laboratory experts working to a set design, but as attendants on a self-governing organism that weaves its own web and fulfills a destiny beyond our ken. (J. J. Findlay.)

FOR FURTHER READING

- Creighton, J. E., *Studies in Speculative Philosophy*, pp. 56-66.
 Hoernlé, R. F. A., *Idealism as a Philosophy*, pp. 45-75.
 Horne, H. H., *Philosophy of Education*, Chs. VIII-IX.
 Royce, J., *The Problem of Christianity*, Vol. II, pp. 117-152.
 Smith, J. A., *Proceedings of the Sixth International Congress of Philosophy*, pp. 128-136.

Chapter IV

THE NATURE OF EDUCATION: (c) PRAGMATISM

The Pragmatist Pupil.—Most persons have in them a strong vein of pragmatism: conspicuously so in childhood and adolescence. The pupil with pragmatist leanings has marked practical and social interests. He may be identified as possessing the following characteristics: in the first place, he has a tendency to see life, not as a vaguely conceived whole, but as one thing after another, in vividly conceived bits. Tomorrow is always a new day; and the interests of the afternoon frequently have little in common with the interests of the morning and evening of the same day. He moves from one situation to another; and as soon as one problem is solved, he lets it drop and is planning for the next. He concentrates upon what he is doing, here and now, always with a forward glance toward the immediate future. As Dewey says, he "lives forward." The remoter future influences him chiefly through his choice of immediate objectives. Unlike the poet who "looks before and after, and sighs for what is not," he spends very little time in looking, and none at all in sighing. He lets the past go, and works forward toward his specific objectives. Reality, for him, is the practical and social content of the present, as it grows into the future. This occupies the focus of his attention, to the almost total exclusion of marginal interests.

In the second place, he is essentially active, always doing something. Show him an engine or a piece of clockwork or this or that instrument. He never just contemplates it. His hands seem to come to life, and you will see him touching, feeling, and testing it, interacting with it, doing something with it. Tell him about a situation of some sort which he cannot immediately touch; and, if it means anything to him, he will be planning what he would be doing in such a situation, how he would react to its social or biological stimulation, how he would interact with it. Try, on the

other hand, to interest him in some deep matter of abstract contemplation and transcendental philosophy, and you will fail completely to awaken his interest, just in proportion as the situation is presented in an abstract and contemplative way which excludes the possibility of action on his part. He is essentially a "man of action" rather than a "man of thought." As Foster says,¹ "The pupil is essentially a bundle of activity, of native and acquired tendencies to action. The basis of all teaching is the activity of the child. All that teaching can do is to induce and direct that activity . . . the self-activity of the student."

In the third place, the stimuli to which he reacts are of a simple and rather obvious kind. They are the natural, biological and social stimuli. Food and drink, exercise and rest, mean a good deal to him. They are transitory situations; but, when the fit is on, they absorb his interest to the exclusion of all else. When, as a small boy, he is playing that he is a railway locomotive, he runs up and down, uttering characteristic sounds, until physical exhaustion supervenes. Then he is all for sleep, and will sleep with enviable thoroughness. As a man, he will be a little like Dryden's Zimri, "not one, but all mankind's epitome, . . . everything by starts, and nothing long," and, it might be added, everything thoroughly. The calls of ambition and of sex will also, in most of their obvious forms, mean a good deal to him. But, like the need for food, they too will be of a transitory character, stimuli which cease to trouble as soon as the fit is over. When a man has dined well, it is not much use to take him into a butcher's shop and invite him to select his next meal. The interest has died, and he is ready for a good smoke now, to the exclusion of everything else.

Finally, he is interested in the life going on around him, so far as it contains situations which appeal to some one of his natural motives. He does not stand aloof, in an abstractly critical attitude. You will never see him hanging around on the edge, but always in the center where something is doing: arguing, urging, trying to lead, trying to interact with his fellows so as to influence the

¹ H. H. Foster, *Principles of Teaching in Secondary Education*, 1921, p. 11.

event, and make things turn out this way rather than that. You can never tell just what he will be doing, for he seems a different person in different situations. But you can always be sure that he will be in the midst of things, doing something definite.

As a pupil in school, his interest will be in recitations rather than in lectures, because recitations give him a chance to do something and to interact with the teacher and with his fellow pupils; whereas in a lecture he has to sit still and listen to someone else all the time. All he can "do" is to take notes, somewhat passively; and that does not interest him. He will be especially interested in experiments because they give him a chance to do something, and also because each of them is something complete in itself. Experiments are usually unconnected, and teach, not so much "the subject," as their own particular technique and their own particular insight. That is why pragmatist writers² insist that: "We must substitute for the futile and harmful aim [of covering the whole field of knowledge] the better ideal of dealing thoroughly with a small number of typical experiences in such a way as to master the tools of learning, and present situations that make pupils hungry to acquire additional knowledge. . . . What the pupil really needs is not exact information . . . , but how to find out for himself."

The pupil's own experimentation is thus disconnected, and the conclusions from one experiment may be inconsistent with the conclusions from another. But that will not distress him, because he has no strong sense of consistency or continuity, and also because he cannot see why anyone should expect different doings to be consistent with one another. He is satisfied with each if it "works." He does not expect it to do anything more; and the realist or idealist ideal of one all-comprehensive Truth means to him nothing tangible, and consequently, nothing whatever. He expects his teachers and the school to provide him with plenty of opportunities for doing things and distinguishing himself, for acquiring scientific techniques, and for acquiring contacts of a practical kind with the industrial civilization around him. As

² John and Evelyn Dewey, *Schools of Tomorrow*, 1915, p. 16.

Dewey says,⁸ "In the great majority of human beings, the distinctively intellectual interest is not dominant. They have the so-called practical impulse and disposition. If we were to introduce into the educational processes the activities which appeal to those whose dominant interest is to do and to make, we should find the hold of the school upon its members to be more vital, more prolonged, containing more of culture." The pragmatist pupil does not expect to be turned into a narrow scholar or an other-worldly mystic. He does expect to become a thoroughly practical, up-to-date citizen of his own world.

The Pragmatist Teacher.—The teacher with pragmatist leanings is a pragmatist in the first place and a teacher in the second place. Primarily, the pragmatist is interested in the things he is himself doing; in the individual problems which the biological and social environment sets him, one after another, and in solving each problem as it comes along. He is a radical empiricist, taking things as he finds them, and having no general theory, such as the realist and idealist have, to cover the whole of experience. He is essentially an experimentalist, a trial-and-error man, solving his problems a bit at a time as best he may, adapting himself to each situation as it arises, and being, as far as possible, all things to all men.

Among the problems which come his way are, of course, those connected with classroom teaching; and he finds himself adopting the "teacher"-personality as he enters the school, and not putting it off until the teaching day is over. At first, he is able to put it off rather easily. But after some years of teaching, he constantly finds himself involved in situations which necessitate the assumption of the teacher-*persona* out of school hours. He walks, talks, dresses, and looks like a teacher all the time. His predominant bias makes him approach social situations as if the other party to the social contact were a potential pupil, parent, principal, superintendent, or other person interested in some special way in school education. This expectancy becomes second nature

⁸ John Dewey, *The School and Society*, revised edition, 1916, p. 26, slightly condensed.

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with him; and when this has happened, he has become a teacher indeed, carrying in his face and bearing marks which all can read. You can always tell a teacher.

But, although he has now become a teacher-personality, he still remains a pragmatist, with pronounced leanings toward taking his problems one at a time, in an experimental, trial-and-error way. He does not teach his subjects systematically,⁴ although the school authorities may expect him to use systematic textbooks of realist stamp. When he teaches chemistry, for example, he leaves the "system" to the book, and merely goes through unconnected experiments with his class. Each experiment is treated as something complete in itself, suggesting further problems of technique, and stimulating the members of his class to do further experiments for themselves. In fact, suggesting problems to his pupils, and stimulating them to find for themselves solutions which will "work," is a part of the teacher's function in which he excels. But the realist pupils are left a little baffled by the fragmentary nature of the instruction, and the idealist pupil feels the lack of some deep, all-pervading meaning and purpose and personal vision; and, while some of his pupils will be strong on certain points of detail, not one of them knows quite what it is all about.

If criticized by colleagues, the pragmatist teacher will justify his method of instruction by showing that the systematic text-

⁴I.e., as the realist understands system. In his own sense, the pragmatist builds up knowledge and technique *progressively*, i.e., systematically in relation to the growing interests of the pupil. Thus Dewey writes ("Progressive Education and the Science of Education," in *Progressive Education* 5:203, 1928), "The teacher, having greater insight into the possibilities of continuous development found in any suggested project, has the duty to suggest lines of activity . . . since otherwise there can be no complex, long-span undertaking. Progressive teachers can work out . . . definite and organized bodies of knowledge, together with a listing of sources from which additional information of the same sort can be secured. . . . The material would be associated with and derived from occupational activities or prolonged courses of action undertaken by the pupils themselves. The material would be indication of the intellectual possibilities of this and that course of activity. Presentation of material of this kind would liberate and direct the activities of any teacher dealing with the distinctive emergencies and needs that would arise in re-undertaking the same general type of project. Further material thus developed would be added, and a large and yet free body of related subject matter would gradually be built up" (slightly condensed).

books so beloved in past generations are really false to the method of scientific discovery. That method is piecemeal, solving particular problems one at a time, much as he is teaching his own pupils to deal with their problems. So, too, scientific technique is usually invented *ad hoc*. The systematization is largely the work of textbook writers, professors who are seldom themselves research men. Such systematization is useful for catalogues and works of reference, but is alien to the spirit of discovery. It appeals to the memory, to the academic interest in the past. It builds up vested interests, fixed in their belief that the knowledge which they have acquired in systematic form is a possession forever. But the whole point is, that knowledge is something which changes and grows. The characteristic attitude of the scientist is to look, not backward, but forward. His work is always piecemeal, experimental, strictly empirical: in a word, pragmatic.

He claims that his business is to teach his pupils to do rather than to know, to discover for themselves rather than to repeat laboriously the pedantic systems of others. He has learned from Dewey⁵ that: "For the child simply to desire to cook an egg, and accordingly drop it in the water for three minutes, and take it out when he is told, is not educative. But for the child to realize his own impulse by recognizing the facts, materials, and conditions involved, and then to regulate his impulse through that recognition, is educative. This is the difference . . . between exciting or indulging an interest, and realizing it through its direction." And in so teaching his pupils, he points out that he is acting in accordance with the present day tendency in all branches of human endeavor. In commerce, as in science, politics, economics, and art, as well as in every day living, it is not the animated reference-book men, with their out-of-date lore, the walking encyclopedias, who solve the problems of the present, but the man who is not afraid to cut loose from the past and solve the new problems by new methods, inventing the necessary techniques as he goes along. For the benefit of those who can only understand examples drawn from the past, he points to the case of Socrates,

⁵ John Dewey, *The School and Society*, revised edition, 1916, p. 41.

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universally regarded as the ideal teacher. Socrates also taught his pupils to think and act for themselves, to do rather than to know, to originate rather than to repeat; and this, as the pragmatist teacher insists, is the essential thing in pragmatism.

The Pragmatist Parent.—The parent with pragmatist leanings does not expect the school to turn his son into a fine scholar of the old stamp, a Latinist or a mathematician. His position is, in fact, much closer to that taken by John Locke. Locke desired that the pupil should be taught the beginnings of a large number of techniques so that he would be able easily to engraft upon such beginnings the further growths which he might happen to need in mature life. It is easy, if you have been taught the rudiments of French or German, to develop further. It is easy, if you have been over the groundwork in chemistry or biology, to carry on further researches in these and allied sciences. What the pragmatist parent desires for his son is that he should be trained in the modern techniques which will enable him to make a success of his life in whatever field he chooses for his own. He wants his son to be taught "the whole bag of tricks," so that he will be able to solve his problems and prove a match for most of his contemporaries. He is in thorough sympathy with the notions of the pragmatist teacher, and is, for his own part, particularly concerned to see that his boy does not become too academic, too much a schoolboy, with schoolboy notions of honor and a quasi-professional interest in this or that branch of athletics. He tries to keep his boy in contact with the actual world around him, the world of industrial democracy, with its "shops," its mills, its processes, and its methods of organization. That is to say, his special emphasis is upon the importance of preserving intimate contact with the larger community, and not withdrawing into the life of the smaller school community.

The Pragmatist Administrator.—The pragmatist administrator has no wide-reaching theory of what a school should or should not do. He is there to solve problems as they arise. He is an opportunist who wishes, in every case, to do the best he can for his institution, his teachers, and his scholars. He is in thorough

sympathy with the wants and desires of both pupils and teachers, and endeavors to keep always in the closest possible touch with the larger community.) If some new course seems demanded by public opinion, he does not ask too narrowly how this will affect departments of instruction already existing. He establishes the new course. His school thus comes to resemble, after a while, not a well-knit organism, but an aggregation of somewhat disparate elements, with partial overlappings, and with no pretense of perfect unity.

His school is like a quick-lunch counter, where you can in a brief time obtain, in fairly satisfactory form, nearly anything you want. His institution offers, in short, "brief courses" on nearly everything at the high school and university stage. A B.A. degree means simply the completion of so many "courses." Their sequential arrangement and selection are left flexible, so that each student can pick out what he needs to fit himself for his life-purposes, whatever these may be.

A few years ago, under the "elective system" in force at an eastern university, one or two students actually received the B.A. degree for completing the required number of units of "credit" in a somewhat extreme way. They elected courses entirely on the basis of their being *beginning* courses, independently of their content. "French 1," "Physics 1," "English 1," etc., were selected. In their final year, these students were somewhat put to it to find enough courses number "1" to complete the required number of "credits." But by taking "Assyriology 1," and similar courses, the record was finally established.

This represents, perhaps, a somewhat extreme case of the John Locke ideal; but the pragmatist administrator, on the whole, believes in permitting, occasionally, even this possibility. He has, however, provided, in almost all institutions, certain rules for concentration of studies, and a system of "faculty advisors" or "tutors," to insure that the student really gets the most out of the institution, and not the least.

The pragmatist administrator has, as we have said, no hard-and-fast system of educational theory. But he does follow certain

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guides, especially the guidance furnished by modern pedagogic research. Like the realist administrator, he depends as little as possible on mere opinion, and relies as much as possible on scientifically demonstrated conclusions.

For example: should students be taught in small or in large classes? Opinion in the teaching profession has almost always been in favor of small classes, with twenty-five as the approved maximum. If you are administering an institution which has five hundred beginning students, and you have a rule that all beginning students must take "English 1-2," i.e., a course in composition, possibly supplemented with a little literature, then it is obvious, from the twenty-five-limit rule, that you must be prepared to provide no less than twenty sections, or small classes, of beginning English. This involves providing a fairly large staff in your Department of English; and unless you employ chiefly beginning teachers, it will be a very expensive method of teaching.

If you could have all five hundred taught in a single large class, with a corps of "readers" correcting the composition essays and meeting the students in small groups, that would obviously be much less expensive. The same is clearly the case in teaching the large numbers who seek instruction in beginning chemistry, biology, mathematics, etc.

To the pragmatist administrator, who has to consider the wisest use of his financial resources, the question as to what really is the "optimal" size of a class for beginning instruction in this or that subject is a most important one. As a pragmatist, he has it subjected to scientific experimentation. He has two groups of students, matched in pairs, so that, to each student in the A group, there corresponds a student in the B group, with similar background and similar record of achievement. He has the A group taught in a small section, and the B group taught in a large section, by the same teacher. At the end of the course, both groups are examined by the same "objective" tests; and if either group scores a definitely higher record than the other, while, in other courses, the matched students continue to secure similar records, the evidence is taken as decisive.

In actual fact, the researches hitherto published along this line indicate that students taught in large classes, up to five hundred and more, tend to do better, when judged by the standardized "measures of objective achievement," i.e., examinations of the Yes-No type. While the investigators and their critics are still not entirely satisfied that class size *alone* is the determining factor, the pragmatist administrator is, as a rule, sufficiently satisfied with its approximate correctness to arrange for the building of large classrooms, and the engaging of a staff of a few outstanding lecturers, to which a number of inexpensive departmental assistants are added in order to attend to the routine work.

The financial saving is considerable, and, if the objective achievement of the students is demonstrably not less but greater, the administrator feels justified in adopting the new teaching methods. At present, he uses the new method only where definite experimental conclusions indicate that it can be applied with success, as in certain sciences, and in studies such as history and economics, where the content is important. In language and literature departments, where the artistic perfection of form is important, it may be that he will have to continue with more expensive methods of teaching, unless some new technique can be devised which will prove, experimentally, to surmount the difficulty. The apparent inconsistency of the experimental results, when applied to the different departments of study, does not in any way distress the pragmatist administrator. He accepts the conclusions of each experiment as far as they go, and does not try to make any one of them cover the entire field.

The Pragmatist Knight-errant.—Knights-errant with pragmatist leanings have made pragmatism well known, and have themselves applied their pragmatism to educational theory and, in some cases, practice. The point which calls for special notice here is the view taken by the pragmatist knight-errant of the characteristic institutions of our modern industrial democracy. He has no difficulty in suggesting reforms of existing educational institutions. It is obvious, as soon as he draws attention to it, that to demand years and years of study of Latin or French or German

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in order to turn out the fairly indifferent scholars which the majority of pupils prove to be, is inexcusable. It can be explained as due to institutional inertia in handling vested interests. But to explain is not to justify.

What does the knight-errant suggest should be put in the place of such studies? Should the schoolboy be sent to technical schools, especially to the technical schools instituted by the trade itself? Should he sell newspapers, spend his vacations working in the mills and shops or as a waiter in a downtown restaurant? Should he be a railway porter, a telegraph clerk, or a book salesman? Should he secure his modern pragmatic education which is to equip him for modern citizenship, by occupying such industrial positions as a growing boy can occupy? Should he celebrate his securing of a Ph.D. degree by applying for the position, and performing the duties, of a conductor on a local street car? Should he spend half his day in absorbing the theory of this or that machinery or trade, and the other half in running the machinery or practicing the trade?⁶

That something of this sort takes place on a very wide scale is well known. Many a student "works his way" through high school and college by devoting a portion of his time to industrial services which provide him with tuition, board, and spending money. Many schools make it a part of their business to insist upon practice, as well as theory. The student in an engineering college usually devotes at least his summer vacations to technical practice. The student in a law college usually spends about half his time performing the duties of a junior assistant in some law firm. The student in a college of education puts in a definite minimum of time in supervised practice teaching. The student in a theological college puts in just so much time in practical work in connection with his chosen profession. So too with almost all professional schools.

The relation between theory and practice varies, however. In most high schools and colleges, theory occupies about half the student's time. But in technical and especially in trade and vocational

⁶ Cf. Dewey, *Democracy and Education*, Ch. XXIII.

schools, the amount of time spent in theory tends to be reduced, in some cases almost to the vanishing point, in favor of acquiring techniques, habits and aptitudes capable of immediate use on the practical economic side.

That this leads to great efficiency in a short time, comparable to the efficiency acquired by drill methods in mathematical "tables" and Latin or German "irregular verbs," cannot be denied. And under our present economic system, where immediate tangible rewards are associated with immediate efficiency, there tends to be special emphasis upon practice, somewhat at the expense of theory. But in all subjects, whether in the regular or in the specialized industrial schools, it has been found that such efficiency is acquired at a certain price. It is associated, in spite of the stimulus of early success, with a dulling of the appetite for more. The interest in genuine self-development becomes deadened; and, mechanical efficiency once attained, so that the human being becomes a substitute for a typewriter or adding machine, the hours of time left free from industrial pursuits become occupied by facile and unprogressive reactions to facile and unprogressive stimulations. Very few *Wunderkinder* in any field are heard from in later life.

The reason for this is that practice under present conditions is, especially in the earlier stages, almost entirely a matter of routine; and routine leads nowhere. The pragmatist knight-errant accordingly does not permit himself to be misled by the apparent implications of the word "practice." Trade schools managed by vested interests are, in his eyes, no more educational than Latin schools managed by vested interests. Both are deadening; and the only advantage in favor of the trade school is that its courses are short. The old seven-year apprenticeship system has largely disappeared, and the newer vocational schools guarantee efficiency in a very brief time.

What is needed is an institution in which there is freedom from economic needs; where there is no insistence upon immediate profits, and where the whip of practical necessity is laid aside; where there is time for the natural interest in problems to lead

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to a natural interest in techniques related to just such problems; and where the incentives of success in solving problems serve as stimuli to the solution of further problems by the acquisition of further suitable techniques.⁷ School, in a word, should be a place in which there is time for progressive reaction to progressive stimulation. It is for schools of this kind, which make for progress and freedom from the stagnation of vested interests, that the pragmatist knight-errant works.

The Pragmatist Community.—The members of present-day communities are so largely pragmatist in their ways of living and doing business that it is not unreasonable to speak of the modern industrial community as fundamentally pragmatist in outlook. In so speaking, we emphasize that side of pragmatism which is called "concrete realism," and disregard, to some extent, the other side, which is called "empirical idealism." It is only rarely that our modern communities can be described as idealist in outlook, although comparatively large groups of citizens are, in some of their activities, rightly thus described.

On the whole, the pragmatist community is in sympathy, not only with the demands of the pragmatist pupil, but even with the point of view taken by the pragmatist knight-errant. The community as a whole has a touching faith in the possibilities of education, and a willingness to give the rising generation a comparatively free rein, which is characteristic of modern, as opposed to medieval, times. The community is, however, divided on the question as to whether realism or pragmatism is preferable as the dominant influence upon educational practice. The citizens understand perfectly the piecemeal solution of problems upon which the pragmatist insists. But many of them, while admitting that this is in accord with their own practice, both in the office and in

⁷ The pragmatist does not insist upon any stipulated amount of theory versus practice. As he sees it, such a separation is essentially vicious. What he insists upon is the acquisition of suitable techniques invented *ad hoc*. The suitable technique, as such, contains just as much "theory" as is necessary to its practical success. But the theory is always *applied* theory, fundamentally bound up with the practice.

the home, expect something more systematic and less obviously opportunist, of the school.

However, in spite of a hope that in the school, if anywhere, there is to be found "objective knowledge, objectively expressed," the modern citizens are prepared to accept what they are informed are the latest experimental results in the pedagogic field, and to treat what is at least authoritative, as though it were genuinely objective.

They have no difficulty in understanding the pragmatist administrator as akin to themselves; and his essential reasonableness makes him, on the whole, more acceptable in our time than the uncritical self-assurance and *ipse dixit* of the old-fashioned pedagogues who ruled our own youth. We accept, albeit with a little reluctance, the modern experimental uncertainty in place of the old-time assurance, especially as we suspect that the assurance was frequently in inverse proportion to scientific knowledge.

By "education," then, the pragmatist community understands the trained ability to take problems one at a time and in small parts, and solve them by experimental methods invented to meet the specific situation and applied until they terminate in practical success.

TOPICS FOR DISCUSSION

1. Does the distinction between "a man of action" and "a man of thought" mark a genuine and important difference in human beings? Does it have any special application to elementary, high school, or college work?
2. How far is it possible really to train pupils to be pragmatists-in-general, i.e., not merely to approach this or that problem in an experimental, piecemeal, and concrete spirit, but to adopt a generally pragmatist attitude which will express itself on *all* occasions?
3. Name three typically pragmatist teachers or administrators, and trace their influence upon the pupils committed to their charge.

EXERCISE

What are the specifically pragmatist elements in the following passages?

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- a. The scientific conception is nothing more than an indication of how to take hold of things and manipulate them to get foreseen results, and its entities are real things only in the sense that they are the practically effective keynotes of the complex reality. (H. C. Brown.)
- b. If it be urged that pragmatic truths never grow absolutely true at all, and that the most prolonged pragmatic tests do not exclude the possibility of an ultimate error in the idea, there is no difficulty about admitting this. The pragmatic test yields *practical*, and not "absolute" certainty. The existence of absolute certainty is denied, and the demand for it, in a world which contains only the practical sort, merely plays into the hands of scepticism. (D. L. Murray.)

FOR FURTHER READING

- Dewey, J., *Studies in the History of Ideas* (Columbia University), Vol. II, pp. 353-371.
——— *Democracy and Education*, Ch. I.
——— *How We Think*, Part III.
James, W., *Pragmatism*, Ch. I.
——— *The Meaning of Truth*. Ch. I.
Pierce, C., *Collected Papers* (ed. Hartshorne and Weiss), Vol. V.
Schiller, F. C. S., *The Personalist*, Vol. VIII, pp. 81-93.

Chapter V

DEFINITIONS OF EDUCATION. COMPARISON AND DISCUSSION

LET US now bring together and compare the definitions of education which are characteristic of realism, idealism, and pragmatism. We can then proceed toward criticizing the chief definitions which we find used in current educational discussion.

Realism.—Realism regards the individual as so much nervous tissue, with its characteristic receptor and motor organs and central brain, in interaction with the physical environment. Realists accordingly define education as *the conditioning of the nervous system by physical means*, so as to render it more amenable to physical direction in accordance with the forces of the physical environment, *to make the individual more of a piece with his environment.*

This is expressed by the emphasis upon "objectivity" as the goal, both in knowledge and in conduct, and by the opposition to any form of "subjectivity" and "individuality," whether in art, in conduct, or in science. To believe that it is either possible, or valuable, to withhold some "inner" corner of the self from the forces of physical reality and treat it as a somehow independent "consciousness," with its own non-physical laws and ideals, is, for realism, an error. The ideal is, rather, to open wide the doors of the senses, and to welcome physical reality, so that it may interact freely, and so that there is no portion of the nervous system which is not in physical contact with physical reality. It is from this impersonal interaction that all physical power and physical value are derived; and beyond these, there is nothing but the realm of transcendental illusions which are pure fictions

Withdrawal, if indeed possible, is the source, not of strength, but of weakness.

✓ Let us therefore, in our schools, so train the rising generation that, with its improved adjustment to the environment, it will be stronger and more definitely in contact with reality than preceding generations. Let its hands, eyes, and brains be so trained in our laboratories that it may be a more objective instrument of scientific discovery than the world has ever seen; and let us so train its imagination and control over the mechanisms of expression that its poetry, music, and art may express more convincingly the message of the essential beauty and rightness of whatever *is*, of that physical world which is the be-all and the end-all of our activities and legitimate aspirations.)

As for idealism, with its faith in some transcendental self, generating itself in some reflective flash of intuition, and somehow, out of the differences thus generated, creating a mirror-world in which the transcendental consciousness contemplates its own image, first in empirical, and later in transcendental or ideal form: as for idealism, and its attempt to "educate" by suggesting and stimulating the formation of this reflective intuition, there can be, for the realist, no truce with such a view. It is stark subjectivism, the direct antithesis of what realism regards as vital; and while the realist will admit that, *from its own standpoint*, idealism cannot technically be refuted, although it can be shown to involve difficulties, he thinks it can be, and should be, opposed.

For idealist beliefs, in addition to being illusory and futile, are positively misleading to many who might otherwise enjoy the blessings of realism. Such beliefs are *ignes fatui*, and their true nature should be clearly exposed. Idealism is a kind of haze or miasma which the mind creates in order to lose itself therein, and it involves the systematic misuse of a terminology invented for precisely that purpose. All who take it seriously are lost souls—or rather, misdirected nervous systems—and it is incumbent upon every right-minded realist to detect and resist its insidious appeals to youth.

As to pragmatism, the realist regards its aims in education

with more tolerance. For, while largely ungrounded, it seems to him to be a sort of halfway house between common sense and full-blown realism. The pragmatist ideal of training pupils in the elementary techniques of many sciences, of urging them to look forward to new discoveries, and to trust always to scientific experimentation, seems to the realist a good step in the direction of his own view.

He is, however, a little impatient with the pragmatist's distaste for system, and with his denial of objective Truth and Reality. For such a denial seems, to the realist, to knock the ground from under any really scientific work. Pragmatist researches are thus inevitably superficial, too easily satisfied with practical results, and indifferent to the far-reaching claims of "pure" science. And the realist thus deplores what he feels to be their frivolous indifference to the deeper claims of a science inspired by faith in realism.

He dislikes also the traces of subjectivism which he finds in the pragmatist view of education. The pragmatist believes that the individual does not just apprehend what is there to be apprehended, but that, even in knowing, he is doing something, and that even his ideas are physically powerful, capable of interacting with physical events and of influencing their course. He believes, indeed, that he has experimental proof of this. But to the realist all such beliefs seem, not merely superficial, but naïvely mistaken; and he cannot but regret their influence upon the young, who are too ready, in any case, to suppose that they are somehow important in themselves, independently of undergoing the discipline of subjection to objective fact.

But in spite of deploring these two misleading tendencies of the pragmatist view of education, the realist regards it, on the whole, with good-natured tolerance. For pragmatists also believe that education consists in responding to the stimulation of the environment and in accepting the guidance of experimental science.

Idealism.—Idealism regards the individual as fundamentally a self, and defines education as *the guidance of the individual to full self-consciousness*. In this guidance, interactivity with other selves

is the predominating factor, helping the individual to pass from a dim, half-felt awareness of selfhood to the full knowledge and control of self.

The physical world, for idealism, is a medium in which selves, which are embodied, can meet and interact by way of communication and cooperation. Space-time is a condition of social intercourse. But the spiritual life of selves, while conditioned, of course, by this medium and its laws, develops, not by adjusting itself to its physical medium, so much as by discovering and obeying laws which are far deeper, laws which are not physical but spiritual, the laws of meaning, of order, of systematic unity, of spiritual creativity.

A Shakespeare who writes down a spiritual drama is conditioned, of course, by the paper and ink which he uses, by the need of satisfying his hunger periodically, by the need of nightly repose, by the law of gravitation, and by ten thousand similar conditions. But conditions of this kind, however numerous, do not begin to explain the play itself. This unfolds itself in accordance with laws which are essentially spiritual. It is the creation of a self, and it speaks to other selves a language which they understand, a language which is deeper than Elizabethan English or the French and German into which it has been "translated." To read one of the greater dramas is something more than to adjust one's accommodation and fixation muscles in a certain way, resulting in a certain degree of fatigue of those muscles. It is a living experience in which the self receives spiritual replenishment from participating in a great spiritual adventure. That is why idealists insist that such works should be used for the purposes of education, in guiding the individual to a critical awareness of the nature and resources of the spirit.

So too with science. From the standpoint of idealism, what is important about science is not that it provides us with useful and reliable information concerning matters of fact, but that it represents a wonderful adventure of the spirit, showing what mind can do in its characteristic work of setting its own stamp upon the ordering and unifying of the phenomena which it studies.

It calls to the spirit of generous youth to come and do likewise, to serve the cause of truth, to project his mind into realms as yet untraveled, to set his own stamp upon some field as yet unsurveyed. Such activity is precisely analogous, from the idealist point of view, to the activity of the creative artist who projects his mind into the unmeasured vastnesses of color or tone and forms and fabricates some picture or symphony as yet undreamed of.

Newton and Einstein are undoubtedly physicists. For the idealist, the important thing about them is that they are of the company of great men. That is why he desires physics to be included in the school curriculum: not because it is practically useful, but because it is an expression of the greatness and power of the mind, and has a fascination for those whose interest in the cooperative venture of the spirit is beginning to develop.

When the realist view of knowledge and education is set before the idealist, with its insistence upon the gradual building up of knowledge, block by block, with each later item of objective information firmly based upon its predecessors, and with the belief that the ultimate and initial blocks are *sensa* which are directly known, the idealist is simply amazed. He is amazed, in the first place, that any person of intelligence could regard such conditioning of the nervous system, so as to make the individual more of a piece with the physical environment, as educative. As he sees it, such conditioning is hopelessly external. It deals with the space-time relations of the individual, physically considered, to other objects, physically considered, and adjusts them to one another by an adjustment which is physical and external. The individual is regarded as the sum-total of the forces acting upon it, or of the contents inserted within the nervous system like so many blocks. Send the boy to a law school and you make a lawyer of him; send him to an engineering school and you make an engineer of him; send him to a college of music and you turn him into a musician; or to a business college and turn him into a business man.

From the idealist standpoint, this exclusively objective way of

regarding the individual is too external. It leaves out of consideration the vital point, namely, that the individual is a living self. To enumerate the "contents" thrust upon the pupil in this or that objective-minded institution, is not to tell the whole story. Not all music-college students are or become genuine musicians. Not all law-college students are or become genuine lawyers. From the idealist point of view, it is only when the self finds amid such subjects, especially when taught by interesting and stimulating personalities, food for the self, that it really develops and becomes educated; and it is only such a self that becomes a genuine musician or a genuine lawyer, a self whose music or law is the outcome and expression of an inward and spiritual growth. Of the others, it is true to say what Addison said of some of the pupils who went through the mill in his own time: blocks they went in, and blocks they came out.

In the second place, the idealist is amazed at the naïve assurance with which the realist supposes that he is building up systematic knowledge resting everywhere upon direct knowledge. In educational institutions governed on this principle, the later courses cannot be taken until the courses which they "presuppose" have been completed. Human physiology cannot be studied until general zoology has been completed; advanced courses in botany cannot be studied until the pupil has passed the more general and elementary courses; and the history of modern philosophy cannot be undertaken until a course in Greek philosophy has been taken with success.

Yet every teacher of experience can cite cases in which the rules regarding prerequisite courses have been violated without serious ill-effects and every member of a professors' club must know innumerable cases in which, after Professor X has read a paper on his researches in chemistry, or paleobotany, or German philosophy, or medieval French romances, or what not, other professors, who may not have taken a single course in the department represented by this paper, seem capable, not merely of understanding the paper, but sometimes of making helpful and constructive criticisms.

The idealist, in short, regards "system" in a different way from the realist. The realist believes that a system has to be built up, brick by brick, with nothing omitted anywhere. The idealist believes that a system is the outcome and expression of a central personality, projecting itself freely in this or that direction, and finding itself at home in every field because every field exhibits the unity and ordering which are characteristic of the knowing and acting self. :

John Locke, as a realist, supposed it necessary to study the beginning of many subjects. The idealist supposes that if you study any one subject thoroughly, you are then able to approach the understanding of other subjects from above, via your appreciation of the creativity of the self which is active in all subjects alike. For the realist, the system of knowledge is a matter of contents. For the idealist, it is the outward expression of an inward growth on the part of a central self.

As to pragmatism, with its strictly empirical idealism, the idealist sympathizes with the idealism, and is even prepared, at first, to condone the strict empiricism, understanding that it represents a temporary and transitory standpoint which will be overcome and rejected when the pragmatist has advanced to a deeper and more mature stage of self-development. As to the attack upon his own transcendentalism on the ground that this represents a flight from the real world to an artificial realm of imagination and illusion, a kind of cowardly daydreaming, this seems to the idealist to rest upon pure misunderstanding, except in a few cases which he himself admits and deplors. For the most part, therefore, he is apt to smile in a superior way at such attacks, as vigorous, indeed, but entirely off the track. His withers, as the phrase is, are unwrung.

But on finding that the pragmatist is entirely serious in his radical empiricism and declines to be reasoned out of it, however sweetly and patronizingly approached, the idealist tends to shrug his shoulders and proceed with his own speculations in his own way. He "regrets" the differences, in so far as they are genuine differences, but feels no further responsibility for them. For it is

one of the characteristic doctrines of idealism that enlightenment comes, if at all, from within; and he concludes that he must wait until the pragmatist feels the inward urge and gradually works his way to what the idealist regards as "enlightenment." Meanwhile, the pragmatist's insistence, in education, upon developing the empirical powers of the empirical self, while, from the idealist standpoint, confined to superficial and fluctuating phenomena, is to be treated, in so far as it insists upon self-activity, as at least a step in the right direction.

Pragmatism.—For pragmatism, experience is a matter of specific reactions to specific stimulations of a biological and social kind. In certain of these—the social situations—a *persona* is generated. Mr. X, over the family breakfast table, is "a grouch"; at the office he is "a keen business man"; at lunch in his club he is "a good fellow"; out at dinner he is "the life of the party." That is to say, Mr. X is a different person in different situations. From the pragmatist point of view, there is no central transcendental core of personality running through and unifying all these situations. The Sunday-go-to-church *persona* may have no more in common with any of the other *personae* associated with Mr. X than the different parts played by an actor have with one another. His *persona* is an empirical thing, and is a function of each social situation as it arises.

What education can do in a world of fluctuating *personae*—fluctuating as situations fluctuate—is (1) to transmit the social backgrounds and outlooks characteristic of the community as a whole to all members of the rising generation. That is to say, in our times the primary function of education is *to prepare the young for membership in the modern industrial community*. In the second place, as a further consequence of this primary function, education can (2) *train the young in the scientific techniques which make for the efficient solution of present-day problems*. That is to say, they are to be turned into good pragmatists, taught to take one thing at a time, and solve their problems cooperatively, with new techniques for new situations.

This view of education has its negative sides. First, as regards

realism. The realist teaches that the fundamental reality is physical, and that the individual must conform to physical laws. The pragmatist teaches that such a view is an abstraction. There is no such thing as physical reality *per se*. There are only fluctuating situations of a kind which is predominantly biological and social. The individual interacts, in such situations, with factors which are primarily biological and social, and, to some extent, also physical. But in such interaction, the individual does not have to *conform*. His own contribution is a genuine one, and may radically alter the outcome of any such situation, even on its physical side.

Telephones, radios, flying machines, and the whole apparatus of our modern civilization did not come into existence by the merely physical working out of physical laws. Human beings contribute to the making of such things, in response to stimulations which are primarily of a social kind; and their contributions have undeniably altered the physical appearance of large parts of our planet, as well as changing the social conditions of our existence. An idea in the mind is not a mirror image, which does not alter what it mirrors. An idea in the mind of a statesman, or an artist may alter the ways of living of generations to come, and may permanently affect some of the physical features of the world in which we live. Even so simple a thing as the mental image of a meal or of a drink tends to produce measurable physical effects, such as a flow of saliva and swallowing motions, before it issues in the actual physical motions which result in the preparation and consumption of the meal or the drink.

The realist would educate the individual to become an unresisting bit of matter, permeable to physical law and opening himself entirely to its almighty influence. The pragmatist would so train the individual in the most up-to-date scientific tricks that he would be able to meet the physical tendencies of the environment at least upon an equal footing, and to change what he does not like in it. The puzzles of free will which, on realist principles, cannot well be reconciled with the acceptance of systematic and complete physical determinism, do not exist for the pragmatist.

He simply rejects the systematic determinism on the ground that it is a pure fiction, unwarranted by the facts of actual experience.

In the second place, the pragmatist view of education negates all idealism of the classical type, which always rests upon a basis which goes beyond or transcends actual experience. The "Absolute," whether an ideal personality or something even more remote and abstract, in which idealists believe, simply does not exist. It is, from the pragmatist standpoint, nowhere met with in actual experience; and it is not only a fiction, but one whose acceptance for educational purposes has consequences which are mischievous. If you try, whether as pupil or as teacher, to realize in your own experience an ideal which, by definition, transcends the possibility of any such realization, you are bound to fail; and to condemn yourself to failure all along the line is bound to end in practical discouragement.

The "absolute" standard makes all the genuine successes of your life—the tasks actually accomplished, the positions won, the daily problems actually solved—seem infinitesimal and unimportant. Kant's absolute moral law negates every natural spring of empirical happiness. And if, in your educational efforts, you try to measure up to a standard to which no human efforts can attain, you are deliberately putting yourself in the position of a Sisyphus or a Tantalus: which are bywords, not only for futility, but also for self-torment.

~The pragmatist accordingly turns his back upon the transcendental aspects of idealism, and contents himself with training individuals so that they may proceed, not from disappointment to disappointment, but from success to success: to successes of the only kind which means anything to human beings in human situations.

Horne's Definition of Education.—Let us now discuss certain of the current definitions of education. In Horne's *Philosophy of Education*, published originally in 1904 and, in the latest revised edition, in 1930, education is explicitly defined as "The eternal process of superior adjustment of the mentally developed, free,

conscious, human being to God, as manifested in the intellectual, emotional, and volitional environment of man."

While the dominant intention in this definition is idealist, the *realist*, fastening upon the words "adjustment" and "environment of man," and thus understanding by the definition that "education is the . . . adjustment of the . . . human being to . . . the environment of man," finds that he can use the definition in a realist sense, as equivalent to "the conditioning of the human being in relation to its (physical) environment." The parts of the definition of which he can make *no* use are the parts connected with the words "eternal," "superior," and "God." The intervening parts he accepts merely because and in so far as he understands the words in a specifically realist sense; and he does not see, or does not admit, that Horne intends them in a different sense.

The present-day *idealist* understands, of course, that the author of this definition lays particular stress upon those parts of the definition which are connected with the words "eternal," "superior," "mentally developed," "free," "conscious," "God," "intellectual, emotional, and volitional." So far, he cannot but approve of the definition. He feels, however, that it is a serious error to use such a word as "adjustment" at all, since its associations are so definitely anti-idealist. If education is, as all idealists believe, an essentially free development from within, it is at least highly misleading to speak of it as a process in which apparently someone (namely, the teacher) "adjusts" someone *else* (the pupil) to "God." Education is, on the contrary, always *self*-education, education of a self by a self. Educator and educatee have to be, from the idealist standpoint, one and the same person. The position of the extra person—namely, the teacher—in this process requires special understanding and explanation.

The *pragmatist* accepts, with a little hesitation, those parts of the definition which represent education as "the process of . . . adjustment of the . . . free, conscious, human being to the . . . environment of man": understanding by "environment" the biological and social environment, and by "adjustment" that the teacher assists the pupil to acquire techniques which he can use

for himself in his interaction with the environment. But he has *no use* for the parts connected with the words "eternal" and "God," believing that these point to the assumption of some "Absolute" which, to the pragmatist, seems to make nonsense of life and education as definitely empirical processes.

TOPICS FOR DISCUSSION

1. Criticize from (a) the realist, (b) the idealist, and (c) the pragmatist, standpoint, "Education is systematic instruction."
2. Criticize similarly the definition, "Education is the development of character."
3. Criticize similarly, "Education is the development of mental powers."
4. Criticize similarly, "Education is the attempt, on the part of the adult members of a human society, to shape the development of the coming generation in accordance with its own ideals of life."
5. How far are such criticisms of other definitions of education really expressions of the cultural outlook of our own community?

FOR FURTHER READING

- Childs, J. L., *Education and the Philosophy of Experimentalism*, pp. 135-165.
Dewey, J., *Democracy and Education*, Ch. VIII.

Chapter VI

THE SELF

SO FAR, we have differentiated, in a general way, the three typical philosophies of education. We can now proceed to deal with the three fundamental problems of all educational philosophy, namely, the nature of the self, of mind, and of knowledge. These are closely connected, not only for the classroom teacher engaged in the practical task of guiding the pupils' self-development, of getting in touch with their minds and assisting them in their quest of knowledge, but also for the teacher at the reflective level, the educational philosopher. We shall begin, then, by investigating the nature of the self.

The ordinary use of language indicates that we attribute selfhood very widely and, indeed, somewhat carelessly. Whenever we come across what we can call a "thing," even in the vaguest and most general sense, we do not hesitate, as far as language is concerned, to speak of it as a "self." We speak of the stone itself, of cabbages themselves, and of amoebas, spiders, and butterflies themselves. And we do not restrict our linguistic attribution of selfhood to a thing mineral, vegetable, or animal. We speak also of the word itself, the number itself, the mental image itself, the aspect itself, and the relation itself. Anything we can speak of, we can and do speak of as though it were a self. Our animism is universal, and possibly incurable.

At the same time, it is clear that when we speak of education as directed to the development of personality or a strong, vigorous self, we are hardly suggesting that the "self" attributed to a number, or a word, or a stone, or a vegetable can be educated and developed in respect of vigor. Nine-tenths, at least, of the things to which language attributes selfhood are plainly not educable at

all. Only human beings, and possibly some few species of animals, have selves which can be educated. Inanimate beings, and vegetables, and some animals, and possibly some human beings have selves in a secondary and derived sense, selves which are attributed to them by us in our associations with them, selves which are really not theirs, but ours.

For example, when we think of some "little gray home in the West," or our books and clothes, our pipes and walking sticks, as though they had a sort of personality, we understand perfectly that it is we ourselves who project ourselves into them by an effort of the imagination, and that the self which we see in them is our own projected and reflected self, much as when we play both hands at checkers or cribbage. It is a kind of courtesy self, like the courtesy titles bestowed by the Grand Monarque upon his associates. He was the source of their nobility, and he had a motive in bestowing honors and titles. It surrounded him with reflections of himself, as though his own personality were enhanced and extended when he entered the great Hall of Mirrors. In the same way, many a man feels more truly himself when he has his pipestem between his teeth, his stick swinging in his hand, and his dog trotting along beside him. In the world of social make-believe we are kept in countenance by the way others play up to us. Our sense of personality expands when others are friendly and appreciative, and it contracts if they are indifferent and contemptuous. It is never an exclusive possession of our own, but is always a composite product, due largely to social as well as physical factors, of which many are not under our immediate control.

The extent of our sense of selfhood is expressed by William James, when he says:¹ "In its widest possible sense, a man's self is the sum total of all he *can* call his, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses, and yacht and bank account. All these give him the same emotions. If they prosper, he feels triumphant; if they dwindle, he feels cast down . . . in much the same way for all."

¹ *Principles of Psychology*, 1899, Vol. I, pp. 291-292, condensed.

The Realist Self.—As the *realist* sees it, selfhood is a purely physical affair. The factors which together constitute it are all physical; the conditions under which these factors come together are all physical; and the resulting complex is in every detail, as well as in principle, entirely physical. At the same time, the realist recognizes a distinction between a "thing," an "individual," and a "self." The conditions are, in every case, physical, but they vary in complexity. Wherever, in the flux of physical events, there seems to be something relatively permanent, a storm center or a central core of any sort, realists can and do speak of "things." But "things" are not necessarily individuals. There is nothing individual about molecules, atoms, protons, or, indeed, about any of the concepts used by physical scientists, any more than there is about the ones, twos and threes of arithmetic, the circles and tangents of geometry, or the x 's and y 's of algebra. They are merely equational elements, standardized universals without any individual features. Any hundred of them could be substituted for any other hundred of the same class, and no one would notice the difference. In fact, from the standpoint of physical science, there would not be any difference.

It is only when the conditions are considerably more complex that individuality emerges. When there is some special reason for doing so, we distinguish one sheet of paper from another, one fountain pen from another, and one automobile from another of the same make. We do so by giving particular serial numbers or by using private marks. But this takes place only when some special purpose is served by so doing. The scientific student of bees puts some distinguishing mark, usually with a little gold leaf, upon a particular bee, and notes its behavior under the heading "No. 745." Apart from some such purpose, it would be "a bee," interchangeable with almost any other bee. In the same way, when the child which, in many relations, is regarded as an individual, slips into the multiplicity of similarly uniformed school children, it disappears into the mass and loses all individuality. Even its parent can no longer distinguish it. It has become "a small child," interchangeable with almost any other small child

in the same school. It is, in fact, only when esthetic, social, and economic, as well as merely physical, conditions are present, that we distinguish things as individuals, and assign to them definite, recognizable private marks.

The difference between individuality and selfhood is wider, as the realist sees it, than the difference between thing-hood and individuality. All selves are individuals, but very few individuals are selves. It is only when the conditions which result in the presence of "mind" are found, that a "self" can emerge; and for extreme realists, it is doubtful whether it emerges even then. For a "self" to emerge, there must be an organism with a well-developed brain and nervous system, interacting with the physical environment, and all these factors, inorganic as well as organic, will be found whenever a "self" is found; but, by themselves, such factors may be merely external; and without something further, without a consciousness, and indeed a self-consciousness, it is doubtful whether anything higher than an "individual" or at most a "mind" could be regarded by a realist as having emerged. As Drake says:²

The self is the complex organism, which receives impressions, manipulates them in the brain, and uses the resulting complex of cerebral elements as cues for its action. The self is . . . the whole body, with its marvellously integrated mechanism that enables it to act as a unit, to adapt itself to its environment, and, in turn, to stamp the impress of its nature upon that environment. The core of the self is the mind, with its coördinated processes that are the direct basis of our conscious life. . . . A self is a developed organism containing an integrated nervous system, of which the cerebral structure is the dominating feature. . . . Its reality is the sort of reality we call *feeling* or *senticence*.

Let us consider the case of Julius Caesar. A realist would enumerate and evaluate the different factors and conditions which gave rise to this phenomenon. His birth at such a time and place, in such a nation, and in such a family. His native abilities and the social influences which developed them, the political and mili-

² *Mind and its Place in Nature*, 1925, pp. 218-222, condensed.

tary circumstances which eventually found him, at the head of his veterans, crossing the Rubicon and marching upon Rome: all these, and many more factors enter into the personality known as "Julius Caesar." Such a personality is the product of its age, of its locality, of its social, political, economic, and military environment. It is not a matter of a single human organism, the storm center of the events taking place in the Roman Empire between the dates 102 and 44 B.C. Thousands of organisms enter into his personality.⁸ Caesar without his veterans would not have been Caesar. Without the Gallic and British tribes, conquered and conquered again, his soldiers would not have been trained veterans, prepared to follow their leader to Rome and overseas to Dyrrachium, to the last perilous struggle with Pompey the Great. Without the whole Roman Empire, Caesar could never have made himself master of the known world. All these factors, then, enter into the individuality of Julius Caesar and make him the personage that he was.

But, by themselves, it is doubtful whether the assemblage of all these factors is enough to make Julius Caesar a real "person." That he was an individual, in the tissue of great events, and that he partook of "mind," as the realists understand that term, is certain. But to be a real person, with a self of his own, requires something further, namely, reflective self-consciousness, a subjective recognition of the course of events and of his own place in their midst. Caesar must know himself to be Caesar, the man of destiny, the meeting point of forces which conclude one era and commence a new one. Then, and then only, he is a real "self," a "person" who is more than an "individual."

Consciousness, however, is, for the realist as for the behaviorist in psychology, a somewhat ineffective phenomenon at best. Actions speak more loudly than words, and, for realism, the "real" Caesar is the tissue of events of which his organism with its brain

⁸ Cf. Holt, *The Concept of Consciousness*, 1914: "personalities are not mutually exclusive aggregates" (p. 152). "An individual's experience is a greater or lesser fragment of the universal stuff, in exactly such wise as the country of France is a fragment of the face of Europe" (p. 154).

is but the nucleus. The real Caesar is physical, interacting with his men on the battlefield, behaving as the great leader. His plans and commands, like the rest of his actions, are all parts of his behavior, parts of the physical interactivity which realists call "Caesar." He looks like Caesar, he walks like Caesar, he fights like Caesar, and he talks like Caesar. All these activities are "extension and refinements"⁴ of the physical situation, ultimately themselves physical, and just as much a part of "Caesar" as his hand or brain. If he is conscious, "aware" of his men and the enemy, "aware" of what the situation calls for in the way of commands and personal actions, this "awareness" does not, as the realist sees it, add anything to the physical, objective situation itself. It is not itself a physical factor, interacting with the rest, but is non-physical, subjective, physically inactive, merely contemplative. He is himself, physically, the nucleus of the situation, the center from which issue commands which direct and control the physical forces around his organism. If, in addition to issuing those commands, he is somehow "aware" of himself as so acting, this does not matter. The extent of his "awareness," whether slight or great, i.e., whether subjectively he is aware only of the immediate occasion, or whether he is saying to himself, "I am the great Caesar, and this day I am deciding the fate of the whole world,"⁵ makes no difference whatever to the actual commands which he hears himself giving. Whether he is reflectively self-conscious or not, the course of events is what it is; and the course of events is the physical reality of Caesar, the only genuine reality which realists accept. Consciousness, if

⁴ S. Alexander, *Space, Time, and Deity*, Vol. 1, p. 105.

⁵ It is sometimes supposed that such "thought" is really *inner speech*, and that inner speech consists of "physical movements of the tongue and larynx, like those of whispering, only smaller," and that it is these movements which constitute the physical side of "thought." But, we have to remember that, as William James puts it, "Words are the perching-places of the bird of thought; but the bird flies between the perches"; and experimentation shows that the movements of tongue and larynx which occur during "thinking" are, in fact, "irregular and apparently unrelated to the words thought of." (R. S. Woodworth, *Psychology*, 1929, pp. 444-445; cf. A. M. Thorson, *Jour. Exp. Psych.*, 8:1-32, 1925.)

in some sense an actuality, is a byproduct of the interactivity of organism and environment; and personality, in so far as the person is constituted by this byproduct, is subjective and ineffective. The physically real thing about personality is the objective physical interactivity of organism and environment, and nothing else counts. The real Caesar, for realism, is the physical Caesar, his external behavior with all its physical extensions and refinements; and the inner Caesar—if any—either is itself a still further extension and refinement of the physical factors of the situation, i.e., is itself ultimately physical and external, or else is a non-physical byproduct of physical events, emerging in ways which are obscure and inexplicable in terms of physical science, and, as subjective, is, from the physical standpoint, negligible.

If we apply this to the work of the schools, we find that the pupils are really the product of the various physical forces impinging upon their organisms, plus the physical reactions of those organisms. The minds of the pupils are constituted by this interactivity, and in this interactivity the teacher plays his part of "conditioning" their organisms so that they will respond in socially approved ways to the stimulation of the environment. In so far as the pupils are conscious of what is going on, are aware, that is, that they are at school, taking part in school lessons directed by a teacher in a socially approved environment, this awareness of theirs is a mere subjective byproduct of the physical situation. And in so far as each of them thinks that he is, himself, the most important person of the group, the true center of the events going on around, and regards his own development with its wishes and feelings as the focal point of the whole educational system, this naïve egoism is subjective and negligible. *So long as the pupil is so drilled as to take into his nervous system the physical changes which the teacher is there to bring about in his memory or background and his planning or outlook, that is the essential thing;* and what the pupil thinks about it all in his subjective imagination, if this differs at all from the school-boy attitudes being inculcated by school life, is in any case

physically ineffective, and, from the standpoint of the realist, does not matter.

The Idealist Self.—To idealists, the physical “me” which seems to satisfy realists is a pitiable thing. It may be a fact, but it falls far short of the demands of the ideal. It is a bit of flotsam and jetsam, borne hither and yon by the waves of circumstance, uncontrolled and uncontrollable. We call it “ours” because our nervous systems are a constant part of the total complex. We say, “I am a part of all that I have seen.” True; but how small a part is the conscious self, and how powerless! An aching tooth, a crash in the stock market, a friend turned foe, and, from being up in the clouds, we are down in the dumps. From day to day we fluctuate, and from hour to hour. Fate is our master, and our souls are without a captain.

As contrasted with these actualities of experience, which of us does not construct the ideal of a self with ambitions beyond filling a little space and occupying a little time? Our ambition is to unify, to order, control and direct our own destinies; to choose our own path, to set ourselves our own problems; to concentrate our own powers in our own way, and to focus them upon the solution of our problems; to withdraw from space-time and the realm of physical circumstance into the inner realm of the ideal; to arm ourselves with the ideal weapons forged by the spirit, the weapons of mathematics and logic, of beauty and truth, and, thus armed, to advance to the conquest of the space-time world and its conversion to the needs of the spirit. As Hocking says,⁶ “Physical events lack . . . *value*. The world with which physics deals enjoys nothing, plans nothing, pursues nothing: it does solely what it must, without joy, but also without pain; without hope, but also without regret or suffering.”

In constructing this ideal, men follow two pathways, the one false and the other true. The false pathway is the pathway of imagination, of daydreaming divorced from doing. It is easy, fatally easy, to imagine our problems solved, our struggles over, and ourselves at the goal of our ambitions. It is easy to imagine

⁶ W. E. Hocking, *The Self, Its Body and Freedom*, p. 43.

ourselves triumphant, wealthy, at the summit of power and success, admired by all who know us, and idolized in the old home town. But it is hard, desperately hard, to realize this picture, to connect our imaginings with the actualities of life, to make a determined start and to carry on against the forces without and the forces within which work against us all the time. *Magna est vis inertiae, et praevalabit*. Many seek refuge from the hard necessities of existence in these comforting daydreams, and lose themselves in the mazes they construct. In the idealism of the imagination, the last state is worse than the first. It is like inflation in economics, calling always for more and more currency while the value sinks lower and lower. This pathway is false: The guide is an *ignis fatuus*; and the traveler becomes hopelessly embogged.

The true pathway is also reached, in the first place, by the imagination, but not by the superficial activity which confines itself to reproducing space-time pictures, however pleasant. The entrance to the depths of the spirit is discovered only by those whose activity is more persistent and more penetrating; who are not content to contemplate, with an eye turned outward, turned upon what is after all another object, however imaginary, a purely space-time self made up of surfaces and hollow within, but who turn the eye inward and backward, and reflect upon the nature of the self as subject, as the active source which makes life and experience its own, and generates, in so doing, both itself and its own object.

If we introspect and look within, trying to catch the self at its work, with the idea of describing and apprehending the nature of that work, at first we see, not the self directly, but only what it is doing. We see ourselves waking in the morning, eating breakfast, going to school, studying this and that, returning homeward, enjoying a social time, and retiring to rest at night. We would say, if pressed, that the self was these activities. If pressed a little further, we would say that these activities were the life of the self, expressions of the self in the medium of space and time, and that the self was a something which expressed itself in the space-time world in these ways, waking and addressing

itself to the day's work, setting itself this problem and that, and eventually addressing itself to rest again, with an eye to the next day's work.

In such introspection, it is what the self is doing, the activities in space and time, which loom large and attract the attention. The self itself, which expresses itself in these ways, tends to remain withdrawn and to escape further notice. Let us see if we cannot push a little further and penetrate more nearly to the nature of the self. So far we realize that the self is active in space and time, and that in these activities it expresses itself. That is to say, it externalizes its own inner nature and projects this nature, like an enzyme, into the physical environment. In this way its activity is creative, and what it creates is always stamped with the image of the creator. A Beethoven creates sonatas and symphonies. So does a Mozart, a Haydn, a Mendelssohn. But no one who is musically sensitive would mistake a sonata of Beethoven's for a sonata of Mozart's, of Haydn's, or of Mendelssohn's. Each bears the stamp of its creator, and the stamp is, for the musically sensitive, unmistakable. So too the housewife creates around her a gracious home life; and the different homes we enter speak to us, each of the personality of its mistress. Yet each is unique. Homes and housewives are not interchangeable, any more than the sonatas of great musical artists. Each home, like each sonata, bears upon it unmistakably, for all who are sensitive to such things, the impress of the spirit which has created it.

So far, then, we realize that the self, in organizing, arranging and unifying elements in the space-time world, violin tones, piano tones, the furnishings and equipment auxiliary to human living, or whatever it may be, is projecting into the space-time world its own principle of organization, its own active self. And the activity so externalized does not, in the process of externalization, ever quite cut itself off from its internal source. The work of a creator, stamped with his personality, remains creative, and creative in the way characteristic of his self and of no other self. Long ago it was observed that the work of great artists continued to live and to influence other selves in a creative way. The poems

of Homer have influenced many a poet to write quasi-Homeric epics, to write tragedies and comedies on quasi-Homeric themes, to recreate the aristocratic visions which were the mirror in which could be seen the self of the original creator. Agamemnon and Clytemnestra, Odysseus and Penelope, Achilles and Patroclus still live and move us, in the work of many an author, down to our own day; and Queen Elizabeth and Queen Victoria still have their being in our lives, commanding and inhibiting, directing and restraining, and creating an atmosphere of courtly adventure or domestic respectability. The creative self creates its own self, and the self which it creates retains the creative power of its original, mingling with other selves and, with their aid and co-operation, generating still further creative images.

We are now, perhaps, in a position to understand what was meant when we said the self is the active source which generates both itself and its own object. The true Beethoven *is* the sonatas and symphonies which he created, and the true Shakespeare *is* the great dramas and characters which he stamped with his own creative impress. In creating these objects, the sonatas and dramas, Beethoven and Shakespeare were creating or generating their own selves, and were generating themselves not merely as objects in space and time, but as creative objects, i.e., as objects which still retain the power to create yet further space-time images of themselves by mingling with the selves of other living artists. Objects thus created are not cut off from subjective being, but retain their subjective power, their power to create further objects.

This, however, is not all. It is possible to take a still further step.⁷ When we reflect upon the nature of the self, the act of re-

⁷ Not all idealists take this further step. Bosanquet, for instance, declares that, "The world comes first; it works towards finding a centre, and in this working the types of our thinking and experience arise. So far from the centre being given, in finite experiences it is only an ideal never to be completely realized. A spiritual nucleus, a given unitary being, does not help us at all. Finite consciousness is not a *datum* from the beginning; it is a light and a revelation which comes only when it is prepared for and demanded. Mind, so far as it can be in space, is nervous system, focussed in the *nisus* towards unity." (This association of nervous system and the *nisus* is "a standing miracle.") *Principle of Individuality and Value*, 1912, p. 219.

lection yields two selves, (a) the self which is actually reflecting, and (b) the self upon which we reflect. The first is the subject, and the second is the object of the reflection. Internally, as contents, they are, ideally speaking, one and the same self; but in relation to the act of reflection which brings them both into being, they are different, as subject is different from object, as the thinker differs from what he is thinking about, and as the creator differs from what he is creating. Let us call (a) the creative or parent self, and (b) the created or child self, and let us proceed to consider them one at a time.

From the standpoint of (a), the creative or parent self, whose act of creative reflection has called the self (b) into being, into the kind of being enjoyed by an object of reflection, there is really no difference. For the self created is the creator's very self, reflective and creative as well as created and reflected upon. It does not cease to be creative by being created, and does not cease to be reflective by being reflected upon, but retains all the powers of its author, and is, indeed, identical in all respects with that author. $(a) = (b)$; $(a) + (b) = (a)$. By reflection it (a) has become conscious of itself, $(a = b)$, and with this self it abides in perfect unity, completely transcending difference, in its timeless and spaceless self-identity. It is essentially solipsistic, utterly at peace, and is without tensions, desires, or problems. It embraces all the creative consequences of its creative act in a perfect love which is beyond seeing, telling, and questioning; for its unity is absolute.

But from the standpoint of the child (b), created in its parent's image, the distinction marks a genuine difference. Where the parent is unity, the child is plurality. Where the parent is absolute identity, the child is an identity into which difference has irrevocably entered, and, along with difference, tension; along with the tension, desire; and along with the desire, problems and questions. The created self is thus essentially a self whose creativity is permeated with desire, desire to solve the problems and questions which spring up insatiably from within. It cannot, if it would, overrule its parent's act which called it into being, along with its

desires and problems; for its creative power moves, not backward, but forward, and follows inevitably the only pathway open to it. Armed with the principle of difference itself, it projects itself creatively into this problem and that, calling into being all the arts and all the sciences, all the religions and all the social institutions, seeking its own fulfillment in a world of infinite plurality, seeking the perfection of itself in a vast hall of mirrors in which its image is multiplied to infinity. In this world of infinite differentiation, the creative child-self hopes, by projecting itself in all possible directions and asking all possible questions, to attain at last to the status of the parent self, for which there are no questions. By projecting itself into an infinity of problems⁸ and thus creating all possible images of the self, it hopes to coincide in all respects with the universal creativity of its parent. When the problems thus set have all been solved, the child-self will have attained to complete selfhood. The tension will then relax, and the self, throughout its whole reach, will be completely at one with itself, with its every desire lost in perfect fulfillment.⁹

For the individual man or woman, the problem, as the idealist sees it, is to realize that the cosmic interplay of physical, chemical, biological, and social "reality" which constitutes the apparent environment is a mere phenomenon of the senses, a dissolving view which is the product of forces essentially spiritual. The whole of space-time existence, with its multiplicity of prairies and oceans, of men and women with their innumerable variations upon the

⁸ Cf. Bergson, *Introduction to Metaphysics*, tr. Hulme, quoted from D. S. Robinson, *Anthology of Recent Philosophy*, pp. 170-171. "In its eternally unsatisfied desire to embrace the object around which it is compelled to turn, analysis multiplies without end the number of its points of view in order to complete its always incomplete representation, and ceaselessly varies its symbols that it may perfect the always imperfect translation. It goes on, therefore, to infinity."

⁹ Not all idealists accept this position. Thus Bosanquet writes, "We are in conflict with the fundamental necessities of the better life, if we construe the Absolute as heaven, and reckon it as a future of enjoyment crowning the struggle of time. Tension and satisfaction may, as we know, be immensely modified in character, and to conceive them as perfectly fused is beyond our experience; but satisfaction without tension is a thing that reason does not suggest and experience does not indicate. . . . You cannot believe in Optimism alone." B. Bosanquet, *The Principle of Individuality and Value*, 1912, pp. 17-19, condensed.

theme of the human life cycle, with its far-flung chain of laws and instances, is nothing, to the idealist metaphysician, but a vast mirror in which the self learns to recognize its own features. The self which it finds, however, is not something behind the mirror, but is rather behind, and contained within, the activity which looks into, and projects itself into, the mirror.

If we lose sight of the projective activity, we can regard the world objectively and externally, as something existing in its own right. In that case, we take the mirror images for reality, and proceed to catalogue them *bona fide* in our textbooks of objective science. We find, indeed, that they constitute a system, but it is a system to which we have lost the key.

It, however, we cease to regard the world externally via our senses and our mathematics, we find that we can approach it from within, in love, in art, in religion, in philosophy, in *any* activity which is genuinely creative. We can experience in our own selves the creative, spiritual force which lies behind the veil of appearances; the unity which is beyond the immediate differences, the essential life which transcends phenomenal existence. As J. A. Smith tells us:¹⁰

The notion of self-consciousness seems to me the key and clue to spirituality and so to reality, a notion illuminative of what in them is dark and perplexing. It is in its light that we grasp the meaning of history, as it is it [the self] which is revealed in and by history. Self-consciousness is not a fact, but a process, not made but always in the making, . . . it is a process of self-making or self-creation, and . . . in making itself and so coming to be, it reveals to itself its own meaning (which is its own reality). . . . Its nature and meaning cannot be expressed, but that does not mean that they escape the grasp of Mind. . . . What we so fail to express . . . is a notion still . . . in the making—eternally to be made, unmade, and remade. . . .

If we allow ourselves to be swept into the vortex of temporal interests, toward biological and social loves and hates exclusively,

¹⁰ In *Contemporary British Philosophy: Personal Statements*, 2nd Series, ed. Muirhead, 1925, p. 239. condensed.

in their endless particularity; if we are in love with Mary or with Jane, and are not also in love with Love itself, we shall fail to realize the object of our quest. But it is possible, while still living a human life in unity with our fellows, to assume with fair success the point of view of eternity, of that vitality which transcends and yet contains all differences, and thus to realize, not externally but from within, our fundamental living unity with the ultimate, self-creating Self, the ideal Source from which we draw what creative power we ourselves manifest in the work of the world.

In the work of the classroom, the idealist teacher realizes that, behind and in and through the attention devoted to the details of grammar, literature, and science, the pupils are developing selves, selves growing in the power to project themselves into the subject matter studied, and, with some help from the teacher, to unify and organize that subject matter in accordance with the laws of the self. He therefore insists less upon the subject matter in its own right, and draws attention rather to the opportunities it offers to the ambitious self, the opportunities of reorganization and of interactivity leading to growth in spiritual power. What the pupils learn with his assistance is thus not so much objective information as the art of mastery over the study of subject matter. They learn to take notes, to write essays, to project themselves creatively into this subject and that, seeking everywhere opportunities for self-development. That is why, when we compare seniors with freshmen, we note the marvelous increase in mastery over the environment, the wonderful growth in personality and spiritual selfhood. As graduates, they go out into the world, prepared to develop further their powers of creative self-projection, and to reflect upon the principle of selfhood involved in all such creativity.

The Pragmatist Self.—The *pragmatist* begins by criticizing the idealist position. With much in the concrete program of idealism he has no quarrel. He too believes in social intercourse, in the cooperative solution of problems, in the raising of life above the merely local and tribal, to a more nearly human level. He too accords a place to charm and appreciation as well as to efficiency.

He too believes in the function of conscious reflection as a factor in the building up of the highest sort of self. But the pragmatist is, above everything else, an empiricist; and no empiricist can tolerate for a moment the transcendentalism which characterizes every phase of idealism. Selves which are "metaphysical," ideals which are "transcendental," points of view which are "ultimate," are, from the empirical standpoint, neither actually real nor practically usable. They are fictions, delusions, cheats. The idealist permits himself to smile at those who take "the wrong path," the pathway of the physical imagination, and comfort themselves with pictures which can never be realized in practice. But *all* idealists, as the pragmatist sees them, are in this position, and never escape from it. For the very essence of an ideal which is "absolute" precludes its realization under the conditions of actual living. It always evades our grasp and, indeed, makes nonsense of our empirical efforts. The idealist is, in fact, doubly a failure. He fails to realize the values implicit in empirical living, and he fails, too, to realize what he regards as ideal living. The pragmatist prefers to take his stand with the actualities of human experience. Here no compromise is possible. The way of the idealist and the way of the pragmatist diverge.

As an empiricist, the pragmatist believes in a self which is a kind of fact. It is a phenomenon which makes its appearance in concrete situations of considerable complexity. When an organism interacts with its biological environment, "experience" makes its appearance. When an organism interacts with its social environment, "social experience" emerges. When the interactivity of such organisms is mediated by spoken concepts or language-symbols, "mind" emerges. Like life itself, these three—experience, social experience, and mind—are not "things," but "functions." They are functions of *all* the factors, organic and inorganic, which together constitute the concrete situation. Precisely the same is true of the self. Self too is understood by pragmatists, not as a thing, but as a function. As a function, it emerges in the same situation as gives rise to mind. In fact, self is defined by pragmatists as

"the minded organism," and is a "social-vocal phenomenon" occurring only in such situations as call for cooperation via concepts or language-symbols such as cues or rules.

Consider men and women interacting as members of a dramatic cast. They throw themselves into the rôles allotted them, and *are*, for the time being, "the bad demon," "the good fairy," and the other characters of the pantomime. They listen for their cues and interact according to the rules of the game. Each is a social-vocal phenomenon, a *dramatis persona*, with a self which is artificial, fictitious, adopted in play, for the time being.¹¹

Consider, further, a number of men and women interacting in an ordinary social situation in real life. Here too they throw themselves into the rôles allotted to them by social convention and social expectation. A is the "old-fashioned father," B is the "modern daughter," C is the "boy friend," and D is the "anxious mother." When we pay a call on E, he acts the part of "perfect host," while we, of course, play up to him in the part of "perfect guests." The extent of such dramatization is as wide as the field of social relations. Wherever two or three are gathered together, they are all "acting," more or less, responding to their cues and playing up to what is expected of them. The self assumed in such a context of purposes and interactions may be transient, a matter of a few minutes or hours. It may be more permanent, as in the case of the character adopted or bestowed in the usual family drama, with its long history of accepted family virtues and family failings.

In any case, then, whether in play or in real life, the self, as the pragmatist sees it, is a behavior-symbol, a *persona* which is the outcome of a social situation; transient if the situation is transient, more permanent if the situation is more permanent. Selves are always concrete, always empirical, phenomena which appear and disappear upon the stage of social life according as the vast interplay of organisms and events rises or falls in com-

¹¹ Cf. Charters, *The Teaching of Ideals*, 1929, Chs. XIII (Personification) and XIV (Dramatization).

plexity. As H. M. Kallen says,¹² "Mind is neither simple, nor immutable, nor stable; it is a thing to be 'changed,' 'confused,' 'cleared,' 'made-up,' 'trained.' One body, . . . in the course of its lifetime, has many minds, only partially united. . . ."

This differs from the position of realism in two ways. In the first place, the realist, while also thinking of the self as a "mind-body complex," always stresses the physical aspect of this complex. What is "real" in the self is fundamentally the central nervous system, the neural habits characteristic of the organism in its interaction with the environment. The self is "real" in so far as it is an integral part of the concrete tissue of events. From birth to death, it is a single, continuously developing structure, and is not to be regarded as a loosely organized number of *dramatis personae*, as various as the situations in which they arise.

A slight qualification should perhaps be made to this statement. From the standpoint of modern physics,¹³ a space-time object, . . . since it occupies at every moment a different position in time, is not a single permanent entity, but a series of fleeting temporary entities. A physical thing, instead of being persistent in time, is continually coming into and going out of existence. The modern physicist thinks of a real man as a series of momentary men. Apart from these momentary men he has no real existence, so that, in attributing to him continuous existence, we are performing an act of mental construction which endows with apparent permanence and solidity what is, in fact, a series of fleeting, momentary particulars.

From this standpoint, then, the difference between realism and pragmatism is a difference, not so much of kind, as of degree.¹⁴

In the second place, the realist differs from the pragmatist in his attitude toward consciousness and reflection. These are prominent in self-dramatization; but the realist regards all forms of consciousness as of doubtful status in a physical world. It may be that, among the byproducts of the brain and nervous system,

¹² "Value and Existence in Philosophy," in *Creative Intelligence*, p. 420; cf. *The Journal of Philosophy, etc.*, Vol. IX, p. 256.

¹³ C. E. M. Ioad, *Mind and Matter*, pp. 40-43, condensed.

¹⁴ Cf. Charles W. Morris, *Six Theories of Mind*, 1932, pp. 325-327.

the function of mirroring reality, of contemplating or being aware of the physical world, is to be admitted. But any such by-product is not itself a physical event, physically objective and physically causative. It is subjective, and is to be kept rigorously out of the causal nexus. The pragmatist, however, in flat opposition to this, insists that every phase of consciousness is closely interwoven with the rest of physical reality, and is precisely as active, as objective, and as causative, as any other features of actual existence which can be named.

The evidence upon which the pragmatist rests, in this claim for physical efficacy of consciousness, is experimental and is open to anyone. What are called "mental images" are demonstrably, not mere byproducts, but physically causative, in ways which are physically measurable. If we picture to ourselves a lemon, and imagine ourselves as taking a fruit knife and cutting the lemon in two, and then taking out a lemon squeezer and squeezing the lemon halves upon it so that the juice drops, drop by drop, into the glass below: who is there who does not find, even before he proceeds further in his imagination with the preparation of a glass of lemonade, that the mere image has started an actual, physically appreciable flow of saliva in the mouth? So too with the self. If we imagine ourselves as this or that kind of self, our actions and our appearance conform to the image. If we repeat faithfully Coué's formula, "Every day, in every way, I am getting better and better," and assume an optimistic *persona* in our imagination, we are, as we all know, far more likely to succeed in our problems than if we permit ourselves to become depressed and assume a defeatist, pessimistic *persona*. "It's all psychology," we say. But, as the pragmatist points out, it works, and it works physically.

In the work of the school, the pragmatist teacher avoids the systematic conditioning in respect of subject matter on which the realist insists. In its stead, he tries, by appeals directed to the consciousness of his pupils as well as by the regular school activities, to develop, not merely technical ability in carrying out experiments, but the experimentalist *persona*, the conscious ac-

ceptance of the empirical, piecemeal, experimental outlook, with readiness to try something new, its attention to detail, and its neglect of system and background. He tries to induce his pupils to accept the Do-it-now *persona*, and to be interested in the activity for its own sake, the interactivity with the biological and social environment, in all its variety of detached situations. That is to say, he tries to develop in them acceptance of the pragmatist view, and to turn them into little kaleidoscopes with *personae* emerging *ad hoc* and immersing as the situation changes, rather than with a single, permanent type of personality. Everything they do is to be done and enjoyed for its here-and-now qualities, with no thought of yesterday and no thought of the morrow. Every day is a new day, every problem a new problem, and every self a new *persona*.

In conclusion, let us compare realism, idealism, and pragmatism in their interpretations of one and the same self, e.g., the self of the experienced teacher. For the *realist*, the teacher's self is primarily bodily, a set of neural habits closely interwoven with the objective realities of the school environment. It is hard to tell how much is contributed by the organism, and how much by the school system. Realists sometimes speak of the schoolroom as a sort of "extension of the teacher's bodily self." At other times they treat the teacher as a part of the school equipment, on a par with the blackboard and crayon. But in both cases, since the teacher's nervous system is just as objective as the school buildings, the realist treatment of the teacher's self is objective and physical.

The inner or private self of the teacher, from this standpoint, is a mere mirroring of the objective interactivity of organism and school environment. The teacher not only looks, talks, and generally behaves like a teacher. He develops a teacher's outlook, a teacher's interests, and a teacher's thoughts. His reality consists, even in his own eyes, in being a teacher only, with a teacher's personality in every respect. His inner or higher self is thus a continuation of the bodily self. S. Alexander explains¹⁵ that:

¹⁵ *Space, Time, and Deity*, 1920, Vol. I, pp. 105-106, condensed.

The difference of the bodily stage of the personal life and the higher stages is mainly one of emphasis. We are absorbed in the practical urgency of our bodily needs and changes and the subject-side of the self does not stand out. If we were confined in our inner life to the sensations we have from external objects, we should hardly notice our inner life. But imagination, willing and desiring, which go on in the absence of sensory objects corresponding to our ideas, begin to bring the mental action as such into relief. In the intercourse with other persons, we are thrown back upon ourselves by the effect of contrast, or imitation, or co-operation, or rivalry, and we become definitely aware of ourselves as subjects of experience. The higher self is thus in all its stages a continuation and expansion, and refinement of the bodily self. The body is capable of indefinite extension. My room, my books, my friends, and all the things I care about, philosophy or psychology, the works of Plato, the history of my country, all these may become extensions of my body. The self "overflows into" these objects. I may in certain moods feel myself one with the universe: the universe has become a part of my body.

The *idealist* completely reverses the realist picture, stressing the reality and independent vitality of the teacher's inner life. He knows, of course, that there *are* poor devils who are little more than animated textbooks or blackboards, with the unfortunate duty, as they see it, of turning their pupils into examination-passing robots. But he insists that the spiritual self is the true reality, and that the ideal realm is the true source of the teacher's power. It is his living vision of the ideal which animates and endows with meaning the texts and wall charts and the whole physical paraphernalia of school life. These furnish a medium through which the spirit of the teacher converses with the spirit of the pupils, and kindles them until they too give forth spiritual warmth and light of their own. The teacher is an honored friend and leader, privileged to inspire the hesitant but eager steps of youth until youth too can walk surely in the paths of the spirit. The mentality and personality of the teacher, when not crushed by overwork or a too narrow routine, are an open channel lead-

ing to, as well as from, the vast ocean of knowledge, which is one of the great sources of vitality and power.

For *pragmatism*, the teacher's self emerges in the social-vocal situation of school life, which requires expectant pupils and school equipment, with the community somewhere in the background, as well as the previous training of the teacher. When any of these factors are absent, the teacher's self lapses, and it does not reappear until the situation is reconstituted. It is in essence transient, a *persona* which is a function of *all* the factors mentioned.

This explanation differs from the idealist interpretation in being empirical; and from the realist interpretation, not merely by its insistence upon the essentially transient nature of the *persona*, but especially by the recognition of the power of consciousness. It allows to the expectation on the part of pupils and community, as well as the image, in the teacher's mind, of "a well-dressed, well-behaved, impressive teacher," direct causal efficacy in producing the total result. To the realist, the teacher's self is a physical fact; to the idealist, a transcendental ideal; and to the pragmatist, a function of a situation predominantly social.

TOPICS FOR DISCUSSION

1. How far could we say that a pet dog, or horse, or cat, or parrot, had a "self," from (a) the realist, (b) the idealist, and (c) the pragmatist standpoint?
2. How far could we say that a child of two or three years had a "self," from the point of view of (a) realism, (b) idealism, and (c) pragmatism?
3. When we distinguish sheets of paper, pens, typewriters, automobiles, etc., by giving them serial numbers, is it not really the numbers which are distinct, rather than the objects? So, too, if a child has several similar dolls and distinguishes them by giving to each a name and a growing history, is it not the names and histories which are distinct, rather than the dolls? Similarly, when we listen to the metronome and read into its successive beats an accented rhythm, is it not the accent and the rhythm which differ, and not the beat?

4. How far is it true that our "awareness" of what we are doing may make no difference to what we do? Consider in relation to successful learning or teaching.
5. How far is the idealist self (a) individual, and (b) social? Consider a Beethoven, Kant, or Lord Curzon, or the self of a school child.
6. Analyze the factors which enter into the idealist "merger of personalities," in the case of pupil and teacher, lover and beloved, members of the same sport team or social group.
7. How far is it true, from the idealist standpoint, to say, "we are what we do, i.e., have done, are doing, and will be doing"? Or are we more than what we do?
8. When we create something—a letter, poem, book, scientific discovery, etc.—which goes on, living an independent creative life of its own, how far do its fortunes affect our own personality, from the point of view of (a) realism, (b) idealism, or (c) pragmatism?
9. Is the *nisus* to create quite as much directed to the self as the idealist supposes, or is it oriented rather toward the objective thing created?
10. Just what is the source of the creative power we manifest in the world? Is it (a) physical, (b) metaphysical, or (c) practical?
11. "What pupils learn is, not so much specific objective information or specific techniques, but a general mastery over the art of studying and expressing themselves." How far is this true, from the standpoint of (a) realism, (b) idealism, or (c) pragmatism?
12. How far is it true that the self is "make-believe," a *persona* adopted in response to the stimulation of a particular social environment?
13. How far is it true that the existence of a "self" is bound up with the use of language-symbols? Would Helen Keller, e.g., have had no "self" if she had learned music or painting, but had never learned language?
14. Could not a pragmatist have a "self," even in situations which were not "social"?

EXERCISES

Try to identify the following passages as specifically (1) realist, (2) idealist, or (3) pragmatist:

- a. Ideals are merely the visible summits of the submerged continents of instincts, emotions, and habits which we can trace into early childhood and through heredity into ancestry. (Charters.)
- b. Speaking in the broadest sense, we do nothing for nothing. We receive, or hope to receive, satisfaction of some kind whenever we deliberately perform an action. If we expected the action to be painful, we should inhibit it. Satisfaction and reward and annoyance and penalty are fundamental in learning. If an action satisfies, we tend to repeat it; if it results in dissatisfaction, we shall probably discard it. To induce children to learn, we must reward them; to induce them to discard an activity, we must penalize them. (Charters.)
- c. The self is the minded body, the living individual, with his needs and interests, his store of potential memories, and his capacities for thought, feeling, and creative imagination. The self furthermore is both observer and observed. (Patrick.)
- d. Persons may be self-conscious, but it is not self-consciousness which makes them persons. It is rather the integration and co-ordination of their activities and their strivings. It (i.e., personality) is a system in which our memories, our names, our written signatures, our language, our hopes, aspirations, and supreme wishes, our friends and social relations, are characteristically integrated and co-ordinated. (Patrick.)
- e. The problem of *adjustment* is an important personal problem, and the development of the individual's personality consists largely in a series of adjustments. The factors that determine what kind of an adjustment shall be made reside partly in the individual and partly in the environment. (R. S. Woodworth.)
- f. We may conclude that stronger and better-adjusted personalities result from solving each life problem as it arises, with a sense of solidarity with the group and a determination to stay in the game. (R. S. Woodworth.)
- g. A self appears to us as the active form of totality, realising itself in a certain mass of experience, as a striving towards unity and coherence. Its self-determination is that of a logical world, one with the relation of a conclusion to premisses, by which a new and transfigured whole emerges from a mass of data which in one sense contains it, but which in another sense it transcends. (Bosanquet.)

- h. The true being of the self lies beyond its fullest actual realisation. The distinctive being of the self is inversely as its dependence on externality and successiveness. (Bosanquet.)
- i. Through my decision, I am more or less completely doing the work of the universe, and, as and because I am myself, I am acting as a member in a greater self, and am in large measure continuous with it, and dyed with its colours. (Bosanquet.)
- j. Finite selves reveal themselves as the living tension, by which the full experience affirms itself in and through externality. Every self is the representative centre of an external world; some nature "comes alive" in it. Every self partakes in some degree of selves and experiences beyond its own centre or minimum, and so expands from its place in nature to a more or less wide and deep participation in the Absolute; within which expansion, as by all inclusion of content, some degree of transmutation is effected in the matter of the selves and experiences which it partially includes. (Bosanquet.)

FOR FURTHER READING

- Bosanquet, B., *The Principle of Individuality and Value*, Lect. X.
 Brown, W., *Mind and Personality*, Chs. II-IV, XVI.
 Hoernlé, R. F. A., *Studies in Contemporary Metaphysics*, Ch. VIII.
 Parker, D. H., *The Self and Nature*.

Chapter VII

MIND: (a) REALIST VIEW

WE NOW pass to deal with the second of the three fundamental problems of educational philosophy, the nature of mind. Men and women in general have only vague ideas of the nature and functioning of mind; but all are convinced that it is the business of educationists, not only to have well-developed minds of their own, but also to have clear knowledge of what mind is and does, so that they can work to best advantage upon the minds of their pupils.

That is why a study of psychology is demanded of all would-be teachers. But when we look at the background and outlook of psychologists, we find that present-day psychological theory has, not one view of mind, but three main views: (1) the one believed in by realists, (2) the theory accepted by idealists, and (3) the ideas maintained by pragmatists. As these views differ sharply from one another, not merely as theories but in almost all of their applications to the practical work of the classroom, it is vital for educationists to be acquainted adequately with all three positions.

Philosophers are agreed that it is one of the chief functions of philosophy to formulate clearly and distinctly a theory of the nature and function of mind; and since it is well known that on this, as on most other points, the chief modern schools are in a state of fundamental disagreement with one another, representatives of each way of thinking have set themselves, with special determination, to make clear the view which they believe it essential for us to adopt if we wish to make the most of our position as teachers of youth. Let us begin, then, by considering the realist view.

Neo-realism.—On the subject of mind, *the realist school* falls into three chief groups: the neo-realists generally, the critical realists, and the intentional or “innocent” realists. We shall consider their theories in this order. Modern realists, as a rule, believe explicitly that all reality is ultimately physical, and consequently that the reality of mind consists in the demonstrable physical changes which occur when it is present and do not occur when it is absent. That is why a realist like S. Alexander states:¹ “I shall endeavour to exhibit minds in the order of realities which begins with mere events in space and time and ends with God. . . . Mind has no privileged place”; and that is why “new realists” like Holt, who, in order not to prejudge the issue, refer to “reality” as *neutral* (rather than exclusively physical), take pains to show² that: “Consciousness is a cross-section of the universe. . . . Mind and matter consist of the same stuff.” In general, neo-realists take the following position:

Compare two physical situations, A and B. In A the physically interacting factors are all inorganic. Their interaction is permeated by physical law in such a way that a physicist could predict with certainty the course and outcome of their interactivity. An astronomer, for instance, can predict eclipses of the heavenly bodies, either forward or backward, with mathematical certainty, and his predictions are definitely verifiable. In situation B, one at least of the physically interacting factors is a living organism with a well-developed nervous system and brain. Here also the interaction of the highly developed organism and its environment is permeated by physical law; if a man makes a movement to the right or to the left, it is a physical movement that he makes; but while a physicist can predict with certainty that any movements he may make will be physical movements, it falls outside physics to predict just what those movements will be, whether they will be to the right or to the left.

For example: if you turn on the light in a dark room and there are half a dozen moths in the room, some of them will fly

¹ S. Alexander, *Space, Time, and Deity*, 1920, Vol. I, pp. 1, 8.

² *The New Realism*, 1912, pp. 354-355.

toward the light, some will fly away from the light, while others will remain settled upon the wall. You cannot predict with verifiable certainty just precisely how any particular moth will move. In the same way, certain chemicals taken internally will induce some men to dance and sing. But not all men will react in the same way. Some grow more silent, while others construct epigrams. You cannot predict with certainty how any particular man will behave.

Situation B is thus more complex than situation A and it is only in the more complex situation that mind is demonstrably present. The neo-realist accordingly locates mind in such situations and only in such situations: namely, "out there," where there is interactivity of an organism with a brain, on the one hand, and a physical environment, on the other. He defines mind either as *that interactivity itself*, or as the *relation between* the active organism and the acting environment. As this "relation" is precisely the relation of physical interactivity, these two ways of defining mind come to the same thing in the end.

If asked just what factors enter into mind, the neo-realist, with admirable logic, replies, *All* factors of the complex situation. You cannot disregard the organic factors, of course; without the complex organism, no mind is present. But you cannot disregard the inorganic factors either; for without sun and air, you do not have a *living* organism. Mind is, in short, like life. It emerges only when many factors, including inorganic factors, are present.

When the sun shines upon lifeless mountains and the unharvestable ocean, the mountains and ocean, and the intermediate air, are all warmed; but that is all. When, however, the sun shines upon living organisms, the bird bursts into song and man responds with a Hymn to the Sun. The factors which enter into mind include, then, in addition to the nervous system of the organism, the sun and air, the mountains and the sea, the stars and the winds: in a word, *all* the factors, organic and inorganic, which enter into the complex situation.

If we inquire what factors enter into our own minds from the neo-realist standpoint, we are told that *all* factors which enter

into physical interactivity with our brains and nervous systems are a part of our minds. The general condition of our own bodies, of course; but also the wood and stones and mortar of the building in which we teach, the pavement of the roads by which we come, the glass and contents of the shop windows we pass on our way to school, the air we all breathe, the clothes we all wear, the books we study, the unseen but often felt economic and social pressure which brings us all together; all these are constitutive parts of the minds we call "ours," quite as much as the lectures we have attended and given, the examinations we have written or set, and the rest of the training we have received and passed on. As Holt says, "The consciousness that depends on any given living organism is the sum-total of all . . . entities to which that living organism responds, and it is the system of these entities in just such and such quantities and just such spatial and temporal arrangement as the environment and the responses themselves define."³ . . . Consciousness is . . . that group of entities to which a given organism responds."⁴

If we inquire where these minds of ours are located, the neo-realist tells us that they are "out there," wherever the interaction in question is taking place. Some of this can be narrowly localized, but a great deal is diffused and cannot well be localized at all. The light reflected from my book to my eyes, for example, comes all the way from the sun. But before it reaches me it is so refracted and reflected that, in respect to this factor, I must admit that my mind is a little everywhere. Air and water are also diffused. So is most, although not all, social and economic pressure. The minds which we fondly regard as "ours" are thus somewhat spread abroad; and the question as to *meum* and *tuum*, and indeed as to what constitutes a "self" at all, begins to become pressing.

Meanwhile, for the neo-realist, mind is precisely this kind of interactivity. It is not always crudely physical, but is capable, in part, of considerable extension and refinement, as in art and

³ *Ibid.*, pp. 183-184.

⁴ *Ibid.*, p. 191.

science. But in the end, this interactivity is, in all respects, and without remainder, physical. Russell says,⁵ "What are called 'mental' events, are part of the material of the physical world." The details as to just how the organism behaves in situations which stimulate this interactivity are investigated in experimental psychology. All that the realist has to add to the teachings of behaviorist psychology at this point is his constant reminder that, if we wish for the real and complete facts of behavior, we must never forget the inorganic factors of the physical environment. For these too, no less than the brain and nervous system of the living organism, are constitutive parts of that behavior which we call "mind." We must never forget that psychology is a branch of *physical science*. As Russell puts it:⁶

Inference from one event to another . . . seems only to acquire exactness when it can be stated in terms of the laws of physics. There are psychological laws . . . which cannot at present be reduced to physical laws. But none of them is exact and without exceptions; they state tendencies and averages rather than mathematical laws governing minimum events. Take, for example, the psychological laws of memory. . . . One supposes that, in order to obtain an exact causal theory of memory, it would be necessary to know more about the structure of the brain. The ideal to be aimed at would be something like the physical explanation of fluorescence, which is a phenomenon in many ways analogous to memory. So far as causal laws go, therefore, physics seems to be supreme among the sciences, not only as against other sciences of matter, but also as against the sciences that deal with life and mind.

"Mind is physical. . . . Experimental psychology . . . behaviorist psychology . . . is a *physical science*." Let us dwell further on this point, and realize more fully just what it is that neo-realism teaches as to the nature of mind. Not many years ago, everyone who studied experimental psychology by laboratory methods was taught that there were two distinct yet parallel ways of reporting psychological phenomena. When O (the experimental

⁵ *The Analysis of Matter*, 1927, p. 387.

⁶ *Ibid.*, pp. 388-389, condensed.

observer) carried out an experiment upon S (the subject, or person experimented upon), O's report of the experiment would be exclusively objective. He would report the nature of the physical stimulation and the nature of the observed physical reaction, the time elapsing between the stimulus and the observed reaction, and so on. He could not see inside the experience of S. His description was thus exclusively external, and in strictly physical terms. S, however, would be aware of the processes going on in his consciousness, and his report would be exclusively subjective, a matter of internal or introspective observation, not at all physical. There would thus be two distinct kinds of report upon the experiment. These would be put together, and would be found to correspond, point by point, with a certain parallelism. Thus, in the ordinary "reaction-time" experiment, O would note that the first reaction took a comparatively long time, the second was comparatively short, the third . . . all as measured objectively by the instrument used for the purpose. S would report that he was concentrating upon an interesting image in his mind, and had forgotten all about reacting quickly; that when the stimulus was given, he was startled for a brief while, recovered himself with an effort, and then "reacted" in the prescribed way as quickly as he could. The second time he was all set for a speedy reaction and reacted at once, as soon as the stimulus was apprehended.

It was frequently found, however, that the introspective reports of S threw no light whatever upon his behavior as objectively measured, and that many subjects seemed only too willing not to take their own introspections seriously. And further, in the case of animal psychology, the psychologist was restricted to the objective, physical report; for the animal had not been trained to introspect and make subjective reports at all. It was therefore thought that, if the physical and introspective reports at best were parallel; that if, of the two, the physical report was the more reliable; and that if, in some branches of psychological investigation the physical report was the only report available, and if it was perfectly possible, in almost all cases, to dispense with any sort of introspective report, introspection might well be regarded

as comparatively valueless. Further direct experiments indicated that introspection was always a matter of external theory, hypothetical description in terms of whatever authoritative ideas were uppermost in S's mind at the time. S was only too ready to report, as observed, whatever a Bernheim or a Freud thought should be observed; and it gradually became recognized that the objective value of such reports was precisely nil. The value of "consciousness" as a source of reliable information is thus discredited, and psychologists now tend to confine themselves to external observation of physical behavior, especially in so far as this can be registered and measured by physical instruments of precision.

A little difficulty was felt at first about sensations, images, and thought processes; and it was supposed that these were not amenable to physical measurement. But it was not long before even the most delicate of these processes were found to have their physical side. They express themselves in physical movements; and William James was one of the first to insist that the physical movements and changes associated with an emotion, e.g., of fear and love, *are* the emotion itself. He observed, also, that most "thinking" expressed itself by talking, which is a physical activity, or, in the case of "silent thinking," as of "silent reading," it expressed itself in "incipient movements" of the lips, palate, and larynx.⁷ Behaviorist psychology has followed the path opened to it by William James, and today it is quite widely believed that human behavior can be explained adequately in terms of physical reaction to physical stimulation, and that the "hypothesis" of "consciousness" is not needed. To put it in extreme form, it is believed that the real facts which underlie what common sense calls "consciousness" are the refined physical movements of *talking*, whether to oneself or to others, and that the "content of con-

⁷ In the same way an image expresses itself in movements. The image of a lemon, thought of as cut in halves, squeezed into a glass, and sipped in the mouth, expresses itself in a measurable flow of saliva. Imagined anger and love express themselves in overt movements, too. Recent experiments, however, indicate that the movements which accompany silent reading and thinking are not the same movements as we find in talking, even on a smaller scale, but are "quite irregular." "apparently unrelated to the words thought of." (A. M. Thorson, *Jour. Exp. Psych.*, 8:1-32, 1925.)

sciousness" is simply the refined and complex movements which the behaviorist identifies with emotion, imagination, and other kinds of action and behavior. These physical facts are the sole reality, and "consciousness" is now widely regarded as an exploded hypothesis.

This, then, is the general position maintained by neo-realists: namely, that "mind," in every detail of its behavior, is purely physical, and that it can be explained completely and without remainder by analyzing it into organic (cerebral) and inorganic (environmental) factors in a state of interaction. As Russell says:⁸

We suppose that, given sufficient knowledge, we could infer the qualities of the events in our heads from their physical properties. This is what is really meant when it is said, loosely, that the state of the mind can be inferred from the state of the brain. . . . I think that this is probably true. . . . Even if we reject this view . . . , physics may be unable to tell us what we shall see or "think," but it can, on the view advocated in these pages, tell us what we shall say or write, where we shall go, whether we shall commit murder or theft, and so on. . . . The *thoughts* of Shakespeare or Bach do not come within the scope of physics. But their thoughts are of no importance to us: their whole social efficacy depended upon certain black marks which they made on white paper. There seems no reason to suppose that physics does not apply to the making of these marks, which was a movement of matter, just as truly as the revolution of the earth in its orbit. . . . And no one can doubt that the causes of our emotions when we read Shakespeare or hear Bach are purely physical. We cannot escape from the universality of physical causation.

The practical effect of this theory upon the work of the schools is to banish the usual hypothesis that, in education, mind acts upon mind through the intermediation of non-physical "ideas." The realist teacher interacts with the pupils physically by talking, that is to say, by definitely physical movements, crude or refined as the case may be; and the minds of the pupils develop physically, as a result of the new factors introduced into their environment by the teacher. The pupils' image-systems and other action-tend-

⁸ *The Analysis of Matter*, 1927, pp. 391-393, condensed.

encies become physically "conditioned" so that they behave differently, owing to their subjection to the physical influences associated with this or that classroom.

Critical Realism.—The *critical realist* differs from the neo-realist generally, in that he keeps the organic and the inorganic factors as distinct as possible, and restricts the term "mind" to the organic factors. He identifies mind with the brain, with the concrete cerebral hemispheres located within the skull; and his position is in accordance with the popular use of language exemplified in such sentences as, "So-and-so has brains," or "—— uses his brains," "—— applies his brains," etc. According to Drake:⁹ "A mind is simply a brain regarded from the inside. . . . The mind is embedded in the body; and the unity of the mind is a part of a larger unity, that of the organism as a whole, with its integrative nervous system. The mind constantly interacts with the other parts of the body; indeed, its life consists in receiving messages through the afferent nerves and sending messages out through the efferent nerves."

Such writers use the term "consciousness," but understand it in a sense which is exclusively physical. As Drake puts it:¹⁰

Consciousness is not : ' ultimate, unanalyzable thing, but is a complex event, which can be analyzed into simple events occurring in different places in a simple spatio-temporal order, and the relations between these events. . . . Consciousness does not exist. It is not something you could find in the brain or outside it. Consciousness is a *function* possessed by a sentient organism. The term is a shorthand one for describing a complex series of events of a certain type, and the relations which subsist between them. . . . The humble stay-at-home cerebral events and the atomic and electronic forces outside the body are the real living forces. . . . They make up the existent world, while . . . these rainbow dreams of ours are . . . sham realities, and belong merely to the realm of appearance.

Intentional Realism.—The *intentional* or *innocent realist* differs sharply from his colleagues on this question of "consciousness."

⁹ Durant Drake, *The Mind and its Place in Nature*, 1925, pp. 93, 221.

¹⁰ *Ibid.*, pp. 10, 174, 184, 186, slightly transposed.

He can, of course, appreciate the logic of their position. If there is no physical evidence of a "consciousness"—if consciousness is not a physical thing—it would be inconsistent for a purely physical realist to concede its existence. The innocent realist can see that it enormously simplifies the problem for physical realism, if consciousness is rejected as an unnecessary and exploded hypothesis. To quote Alexander:¹¹

According to E. B. Holt's view, the total cross-section of the environment is consciousness or the mind, and its parts are, in relation to the whole, sensations, memories, and the like. There is no consciousness lodged, as I have supposed, in the organism as a quality of the neural response. Strange as the doctrine may seem, it is in reality so simple as almost to compel assent. There is no need in it for "enjoyment," and all the difficulties of that conception are avoided. The account which I have given . . . seems to myself intolerably complex. If I am unable to accept a doctrine which goes beyond my own but is so simple and apparently so close to facts, and to which I find myself perpetually being drawn back and persuaded to adopt it, I am bound to state why. It is that the doctrine fails to account for a vital feature in the cognitive situation, namely, that in being aware of the fire, the fire is before *me*, it is *I* who see it, it is *my* fire. This is easy to understand if the response to the fire is an act of consciousness . . . something which experiences itself, ^{the} self-consciousness in the sense that whenever we know, we know that we know. . . .

The innocent realist takes one thing more seriously even than the theory of physical realism: he thinks it his primary business to accept *facts*, however awkward they may be from the point of view of theory, even his own theory. His "natural piety" induces him to accept consciousness as a fact of direct experience, something which cannot be explained away. He sees that it complicates the situation, but believes that, as a fact, it can, in the end, be seen to be not incompatible with the other facts accepted by realism. He is, that is to say, a "factist" first, and a physicist second. But he believes that the only sound and all-comprehensive explanation of facts, of any and every sort, will ultimately be

¹¹ S. Alexander, *Space, Time and Deity*, 1920, Vol. II, pp. 110–112, condensed.

found to be the physical explanation. He thus continues to regard himself as a physical realist, and sets himself to describe the facts of mind as he sees them.

As the innocent realist sees it, mind emerges in situations of considerable complexity which contain a well-developed active brain and nervous system, as well as various inorganic factors. These situations correspond with the situations which neo-realists generally identify with mind. The innocent realist also believes that in many such situations, while mind is present, it is unconscious. It may be and often is completely absorbed in the interaction, and may be unaware either of itself or of the objective, environmental factors of the situation. Psychologists of the introspective school used to say that consciousness was at a minimum when things flowed smoothly and pleasantly, without problems, tensions, and interruptions, as when basking in the sunshine or enjoying a warm bath. There are, as it is sometimes put, times when we "sit and think," and other times when we "just sit." Mind is there, but it is just drifting with the stream. We become conscious, conscious of the situation and conscious of ourselves, only when the organic and inorganic factors cease to flow harmoniously together, when there is some setback, some problem, some choice to be made. "How happy could I be with either—were t'other dear charmer away!" sings the gallant captain, aroused at last to clear consciousness of the situation.

The innocent realist accepts this account, and thus regards "consciousness" as far narrower than "mind." He proceeds to describe "consciousness" as having two sides or aspects, an outer and an inner. In relation to the physical factors, consciousness is an awareness which contemplates or apprehends what is there to be contemplated or apprehended. This is the outer objective side of consciousness. It is an awareness of its physically objective content. It contemplates the redness of the sun, the greenness of grass, and similarly apprehends the other sense-data. Its relation to them is a relation of togetherness or compresence; and in that togetherness consciousness contributes nothing, physical reality everything, including form as well as content. Consciousness or conscious

attention is able to single out this or that factor for special emphasis; it can analyze, synthesize, and unify the factors in the situation before it. But these are not activities belonging properly to mind or consciousness, as distinct from the strictly physical features of the situation. It is because this or that feature is physically selectable, analyzable, unifiable, that consciousness can be aware of it as such. As Alexander says,¹² "This selectiveness of mind induces the belief that the objects of mind are made by it, so that they would not be except for the mind. But the inference is erroneous. If I stand in a certain position, I see only the corner of the table. . . . Yet the corner of the table belongs to the table. . . . The engine-maker combines iron and steel upon a certain plan of selection . . . but the steam-engine depends on him not for its characters or existence as a steam-engine. On the contrary, if he is to use it, he must learn its ways and adapt himself to them for fear of disaster."

Consciousness does not *do* anything. It merely apprehends or contemplates. It apprehends such-and-such factors as objectively unifiable or distinguishable. Its awareness or contemplation does not, in a word, add anything physical to reality, or constitute an additional physical factor. It apprehends, and, in its apprehension, as a part of that apprehension of objective contents, apprehends that what it is apprehending is objective, is not influenced or altered by being apprehended. To a realist, this is self-evident and unquestionable. Nothing but sophistication, the determination to maintain some opposed thesis, prevents us from realizing immediately that this is so. The whole objectivity of knowledge rests upon this, that our apprehension does not in any way alter what we are apprehending. Apprehension is impersonal contemplation of what is there to be apprehended or contemplated in its own nature, as it is in itself.

So much for the outer aspect of consciousness. In its inner aspect, we are said to live our experience, or to realize it subjectively. As the innocent realist expresses it, we "enjoy" our apprehension and contemplation. He does not like to call this subjective expe-

¹² *Ibid.*, Vol. I, pp. 15-16, condensed.

rience an "awareness" or "apprehension" of the self in its various activities, because this might concede the possibility of constructing an objective psychology on the basis of self-observation, or apprehending introspectively what is there to be apprehended. The innocent realist does not believe that this can be done; and he accordingly insists that, in its inner relation, our experience is not a knowing but a living, not a contemplation but an enjoyment. Psychology as a science, then, is treated by the innocent realist in much the same way as by other realists. That is to say, it proceeds by objective, physical experimentation, stimulating the organism and observing the reaction. But the innocent realist differs from his colleagues in accepting the fact¹³ of "contemplation," in which we become aware of the stimuli given and of the reactions observed. For him, then, science is not a complex of interacting language patterns, and knowledge is something more than exclusively physical interactivities on the part of organisms with brains. The physically real thing about science and about knowledge *is* this physical interactivity, but there is something more; we are conscious of the physical facts and physical laws coordinated in the physical sciences. We contemplate and are aware of what is taking place; and, while it makes no physical difference to the facts and laws apprehended, which remain objectively what they are, we enjoy our contemplation and live our awareness.

The work of the schools is thus, for an intentional or innocent realist, something more than a merely physical conditioning of pupils and teacher. The pupils and the teacher are aware of at least some of the knowledge they are sharing with one another. They contemplate, in a living way, their companions and their

¹³ Metaphysically, the difference is not very great. As Alexander says (*op. cit.*, pp. 26-27), "The cognitive relation is not unique, but the simplest of all relations, the mere togetherness of two terms, their belonging together to a world. . . . There is nothing in the compresence between the mind and its objects to distinguish that relation from the compresence between any two objects which it contemplates, like the tree and the grass. . . . Our togetherness with our object and the togetherness of two objects are, so far forth as togetherness is concerned, identical" (condensed).

school tasks; and they enjoy their awarenesses, their contemplations, and their education.

TOPICS FOR DISCUSSION

1. Take three ideas, e.g., (a) the idea of "red" or "loud," (b) the idea of "heaven" or "cloud-cuckoo-town," and (c) the idea of mathematics or chemistry, and explain how far they are physical, and whereabouts they are located in the physical world, according to (1) neo-realism, (2) critical realism, and (3) intentional or innocent realism.
2. Take three plans, e.g., (a) the plan of trying a different stance to improve one's golf, or a different finger technique to improve one's performance of instrumental music, (b) the plan of living in accordance with a definite annual budget, and (c) the plan of preparing to write, and actually writing within ten (or twenty) years, a book on some scientific subject, and show how far every detail and every principle involved in such planning is "physical."
3. How, on any specific form of the realist theory, could you distinguish one pupil's mind from another pupil's mind as being more "accurate," "imaginative," "forceful," "original," "experimental," "reliable," "spiritual," etc.?
4. Does realism reduce all forms of introspection to forms of external observation, or does "observation" itself disappear, too?

EXERCISE

Try to distinguish the following passages as (1) realist in a general sense, (2) specifically neo-realist, (3) specifically critical-realist, (4) specifically "innocent-realist."

- a. The definition of consciousness is its only possible criterion. If consciousness is that cross-section of the realm of *being* to which the organism specifically responds, then the criterion of consciousness is the specific response; and the animal or the plant, like the human being, is conscious of that to which it specifically responds. (Holt.)
- b. Not every item within the conscious manifold, not even a majority of the items, is attested as being "conscious" by an additional and superimposed process of introspection or reflection. Any term or proposition of the hierarchy of *being* may be included in the con-

scious cross-section, and so may be conscious, without being amenable to recall or to introspective judgment. (Holt.)

- c. Consciousness is extended in both space and time:—in space as spatial objects are extended, consciousness being actually such parts of the object as are perceived, i.e., such parts as are consciousness; and in time as a quarter-hour, a day, or a week, is extended. Consciousness also moves about in space. (Holt.)
- d. Cognition is the intersection of two systems, that of the known with that of the knower. The intersecting region has a position in each system. "Thought and its object are one" (Aristotle). Object and consciousness intersect, and their cross-section is the sensation or perception. Sensations or perceptions *are* the objects. The knowledge-system that includes a map is in important respects identical with the actual space that is mapped. (Holt.)
- e. The units of *being* are propositions and terms. By a sort of logical activity inherent in propositions, they generate, along with other propositions, series or systems of terms in relation. Physical objects, which of course are terms, are never contradictory. So-called natural necessity is no more nor less than logical necessity; called natural necessity if the objects are particular, logical necessity if they are partially or wholly universal. (Holt.)
- f. The simple entities, of which, in the last analysis, all things are composed, have no substance. The first entities are the simple ones, the fundamental entities. The concepts of identity, of difference, of number, and of the negative, are more fundamental than most others, and are among the relatively simple in the order of complexities. (Holt.)
- g. Mental states are effects of objects, and causes of the reaction of the organism to them. Because of this complex of relations, the organism is "conscious" of the objects. (Drake.)
- h. The brain-process is something more than physical. Only as we admit the existence of *inner* events (states of the organism) whose characters are projected into *outer* existence, can we explain our attribution to those outer objects, in the moment of perception, of the sensible qualities that each of us seems to perceive in them. The particular inner events that play this part in conscious experience I call *mental states*. The bodily organ that has these states, or events, is the *mind*. The flux of psychic events has its locus in the

brain, and is an integral part of the causal order of nature. A mind is simply a brain regarded from the inside. (Drake.)

- i. The inner events are far too minute and multitudinous to be described except *en masse*. All our perceptual data are *presumptively* the very things known; except as we become reflectively aware of illusion, we suppose ourselves to perceive things as they are. But this presumption is always open to question. The varying *sensa*, however "out there" they may seem to be, are simply our own individual and differing sensations mistakenly referred to the outer world. The belief in the identity of any datum of consciousness and an independent existent is, for all realists, strictly speaking, a hypothesis, not an unquestionable fact. On *any* realistic view worth considering, the existence of physical things is, strictly, hypothetical. (Drake.)
- j. The fundamental tenet of realism is that things exist in their own right, prior to and independently of our knowledge of them. Experience reveals but does not create them. (Drake.)
- k. Consciousness does not exist. The term is a shorthand one for describing a complex series of events of a certain type, and the relations which subsist between them. Consciousness is a complex event which can be analyzed into simple events occurring in different places in a simple spatio-temporal order, and the relations between these (cerebral and electronic) events. (Drake.)
- l. The field of objects is a revelation of the real world of things. Yet the relation of these objects among themselves is one thing; their emergence *in our view* is another, and is differently experienced, and it is this order of occurrence which is our mental history, and is enjoyed and not contemplated. It is ours, and it consists of mental acts. Life exists in the intercourse of the living thing and its surroundings, and is neither equivalent to its products nor exists without them. In like manner, consciousness exists in the intercourse of the conscious being and things, and is neither equivalent to the objects it selects, nor can exist without those objects. (Alexander.)
- m. In any experience the mind enjoys itself and contemplates its object; its object is contemplated, and these two existences, the act of mind and the object as they are in the experience, are distinct existences united by the relation of compresence. The experience is a piece of the world consisting of these two existences in their

togetherness. The one existence, the enjoyed, enjoys itself, or experiences itself as an enjoyment; the other existence, the contemplated, is experienced by the enjoyed. The enjoyed and the contemplated are together. The two elements united in an experience are an act of *mind* and the appearance of a *thing*. (Alexander.)

FOR FURTHER READING

Alexander, S., *Space, Time, and Deity*, Bk. III, Ch. V.

Broad, C. D., *The Mind and its Place in Nature*, pp. 140-317.

Drake, D., *Mind and its Place in Nature*, Chs. XIV, XVI.

Holt, E. B., *The Concept of Consciousness*, Ch. IX.

Chapter VIII

MIND: (b) IDEALIST VIEW

Mind = Life at High Level of Intensity.—Like the realist, the idealist regards mind as a life—in fact, as a higher kind of life. But unlike the realist, the idealist cannot bring himself to regard either life or mind in a cold, impersonal, mathematical sort of way. The realist keeps himself out of the picture he is painting, and seems to regard the life and mind of unicellular organisms like *Vorticella* and *Paramecium*, and of vertebrates like cats, dogs, and monkeys, and of human beings, as though they were all much the same, differing quantitatively rather than qualitatively. He writes of them as though, if you could find a suitable exchange formula, you could treat them all as interchangeable, and he compares their “intelligence quotients” in terms of formulae which, as formulae, do actually lend themselves to equivalences.

To the idealist, on the other hand, life and mind seem incurably specific. A cat lives a cat’s life; a dog lives a dog’s life; and a human being lives a human life. You cannot exchange any amount of one for some quantity of the others. They are qualitatively distinct, and in fact unique. Each has something of its own to contribute to the world as a whole; and if you destroy a species, or even an individual, you have lost something which you cannot replace, something for which there is no substitute. Minds are in the same case. They are unique and not interchangeable. There are no substitutes, synthetic or otherwise, for a Beethoven, a Michelangelo, and a Plato; and while it may amuse a realist-minded statistician to treat the rest of us as if we were merely so many units in the population statistics, we know that even we, as individuals, have something about us which is unique and irreplaceable. Objectively regarded, others can do our *work*; but

there is always a difference; it is not *our* work, and nothing they can do will make it so.

The idealist likes to compare this situation with the situation in respect of color. If you try to formulate a mathematical theory of color in terms of waves of such-and-such vibration-frequencies, you can, of course, do so; and you arrive at very interesting mathematical demonstrations of the equivalence of certain groupings of vibration-frequencies. But color, as an experience, is always colored. It is always red, or green, or blue, or yellow, or something of the sort. And if you abstract from the specificity of color in your physical theory, you are constructing a theory of color which leaves out the thing you are trying to explain, viz., its coloredness, its redness, greenness, or blueness. In the same way, the realist theory of mind leaves out the essentially human quality of the only minds we are quite sure about.

This leads to the next point. Idealists hesitate to speak of "mind" in connection with Vorticella and Paramecium, and are not absolutely sure about cats, dogs, and monkeys.¹ In fact, there are even some human beings whose mentality is not above suspicion. They prefer, therefore, to confine themselves to cases where there is no possible doubt: cases such as Aristotle and Kant, Mozart and Brahms, Thucydides and Mommsen. These men had minds; and by studying what these minds accomplished, we can see what the life and function of mind are like; and, while never forgetting that we cannot exchange so much Aristotle for so much Brahms or so much Kant for so much Thucydides, we can formulate the general laws of the life of the mind, which all these cases exhibit beyond the possibility of doubt.

The Laws of Mind.—When the idealist thus studies mind and its behavior, he finds himself absolutely unable to agree with the realist that its behavior is in any sense physical, and that the laws of mind are physical laws. As he sees it, the behavior and laws of mind are purely spiritual. Physical and spiritual laws are so different that neither can be mistaken for the other; and if we

¹ Cf., e.g., B. Bosanquet, *Principle of Individuality and Value*, 1912, p. 365.

keep our attention fixed upon undoubted examples of mental power, we can easily assure ourselves that this is so.

The first and most universally recognized law of mind is its unifying power. Almost all tests of intelligence devised by psychologists obviously test the mind's power of unifying, in a meaningful way, the factors of some novel situation. The subject is presented with the parts of a simple lock or bell, or with the parts of a fairly simple sentence, in disorder, and is asked to unify them, to put them together in such a way as to bring out their meaning. The older educational tests were of similar character. In examinations for scholarships at British universities, the greatest weight used to be attached to the English essay or to the Latin prose composition. What was looked for was the power of coordinating the various factors so as to combine the greatest variety with the greatest unity. In the same way, when we listen to a preacher or lecturer, we judge the quality of his mind very largely by the way in which he unifies the various parts of his discourse so that they throw light upon one another and bring out the maximal meaning of his subject.

So too the really intelligent orchestral conductor is the man who can unify the various performers so that they work together and produce a single harmonious concourse of sweet sounds. The intelligent chairman of a committee is the man who can unify the very diverse elements which constitute his committee and can realize, in this way, their maximal meaning-value. Similarly with the football captain, the army leader, and, in general, with any sort of leader. Intelligent leadership and mastery are shown precisely by unifying one's followers so that they cooperate and thus produce a consistently coordinated and sharply focused result, in place of scattered and conflicting efforts. Unity is the first law of mind.

The two most universally conceded subordinate laws are analysis and synthesis, taking apart and putting together. *The Analytics* is the name of the most important logical treatises of Aristotle; and it is his *analysis* of the subject of "friendship" into the three forms of (1) pleasure, (2) utility, and (3) virtue which gives to

his treatise in the *Ethics* its easy mastery over all preceding and most later treatments of the subject. Likewise in modern science, a primary rule of the Cartesian Method is the breaking up of wholes into parts which can be tackled in detail and *seriatim*; and this method, when back up by a refined mathematical technique, is responsible for many of the successes of modern scientists. So too in military science. Analysis is the golden rule. *Divide et impera* was Napoleon's, as well as Caesar's, motto. In the work of the mind, the value of analysis is universally conceded.

Synthesis is something more than inverted analysis. It is more than just putting together again what we have previously pulled apart and put asunder. When we have before us the parts of some whole, there is always a question in our minds as to whether we could not leave out some of them or change them for other parts, with an increase, or at least with no loss, of efficiency. In science, experimental synthesis has many economic triumphs to its credit. Newton's reconstruction of sunlight by putting together, not *all* the colors of the spectrum, but *three*, is the classical example. But grapefruit, many new wheats, and innumerable new flowering plants are examples of what is done in synthetic botany; the new dyes are only a few of the discoveries of synthetic chemistry; and the newer and stronger alloys which continue to be produced are equally examples of the value of the synthetic method.

In the arts, if we put ourselves at the creative point of view, we at once realize the element of choice in synthesis. A musician with the resources of the piano or orchestra before him plainly has an enormous range of choice. To produce a required effect, he may restrict himself to the fewest and simplest notes, or he may decide to use *all* the resources of the instrument or instruments before him. Whether it is few or many notes which he eventually puts together, his activity is in any case synthetic; but whether he decides for the simpler or for the more complex synthesis is settled, not by the synthetic method as such, but by an appeal to the demands of artistic unity, of the principle which realizes the maximal potentialities of musical value. That is why synthesis is regarded as a *subordinate* activity, and that is why

the adjective "synthetic" is often used in a slightly derogatory sense. It is frequently felt that, while "synthetic" products may rival natural growths in a strictly economic sense, there is something cheap and artificial about them, and they are somehow deficient in real, vital unity.

In the second place, mind is essentially selective. It is not impartial and universal, taking in all and sundry. It is not a doorman with "welcome" stamped upon it, or a professional glad-hander acting as reality's yes-man. On the contrary, the portals are strictly guarded, and reality in the rough is kept outside. Admission to the *salons* of mind is by invitation only. Only guests who come appropriately garbed and behave in accordance with the approved methods of intercourse have the *entrée*. These are nature's noblemen; but their patent of nobility is conferred, not by nature, but by mind. Mind is a sort of host. It selects its guests, introduces them to one another, and guides their intercourse, deciding in each case as it thinks best.

In the third place, mind is essentially creative, creative of value. Values are esthetical, social, logical, and religious, and their source is, in each case, mind. Whatever mind, with its principles of analysis and selective synthesis, endows with its own unity and stamps with its own seal, receives, *ipso facto*, *esthetic* value. The whole implies the parts, and the parts imply the whole; and in that synthetic unity each part receives enhancement, a kind of halo which it did not possess in itself, outside of the relationship conferred by mind. The contrast of part with part makes each stand out as it did not stand out before; and the all-embracing unity strengthens and supports each part as it was not strengthened and sustained when left alone in a limitless, whirling chaos.

Synthetic unity bestows *social* value. Parts related to the same whole are related to one another, and in that new relationship co-operate and acquire, in so doing, values which, apart from such relationship, they would never have possessed. "Each for all, and all for each" is a motto which has meaning, not merely for a few human fraternities, but for all societies in which there is a unifying principle which is genuinely spiritual.

As to *logical* values, who is there who does not see that they derive, one and all, from the principle of synthetic unity? *Classification* means putting together so as to form a single, unified class. *Division* means breaking up a large class into smaller units which themselves constitute, each a single, unified class. *Definition* means assigning to its place within a single standardized system, i.e., a unified class. A *concept* is precisely a standardized system, a single unified class. *Inference* means reading off the relations established by parts within a whole, i.e., between the elements which have been unified in a single class. But such classification, with all the ramifications studied in logic which are of such immense importance in building up systems of meaning-value, is plainly the work of the mind, with its law of synthetic unity.

As to *religious* values, this is perhaps hardly the place to go into detail. It will probably be sufficient to indicate the importance, for religion, of the part-whole relationship. From a religious point of view, this takes the form of the universal brotherhood of man, realizing, in this cooperation, the maximal spiritual values of humanity. It is not difficult to realize that the part-whole relationship is established by viewing human beings from the standpoint of synthetic unity. And thus we see that, in the case of all value-types, mind, with its principle of selective synthesis, projecting its own unity into whatever it deals with, is their source.

In this creativity, mind functions much as a theatrical director, an orchestral conductor, or a university president does. Mind coordinates and systematizes as it sees best, i.e., with a view to realizing, in each case, the greatest possible value, value which, without such coordination and systematization, would remain unrealized. Apart from the work of the mind, the "parts" would be, not parts of a whole, but fragments, uncoordinated, unsystematized, unrelated, chaotic, meaningless: potentialities perhaps, but unrealized potentialities.

Here, however, a question will be raised. If you ask an actor which is the more vital in the creative work which culminates in a dramatic performance, the actors or the director, he will reply that the actors are the real creative artists and that the director

is just a part of the administrative mechanism. If you ask a group of teachers who really does the work of the schools, the teachers or the principal (or superintendent, as the case may be), they will assure you that it is the teachers, and that the principal, in so far as he is himself not also a teacher, is merely a central nucleus, a part of the administrative machinery. They will draw attention to the fact that, in some educational institutions, the senior teachers occupy the supreme administrative position in turn, each for a year or two, and that in others an "acting" principal looks after the administration for any period, from a month to three or four years.

If the actors and the teachers are in the right, it may well look as though the real work of the mind is done, not by mind itself, which merely brings its guests together, but by reality, by the real qualities which the guests really possess. It is the guests who make the party go. And this is sometimes believed to be the case. Thus Bosanquet maintains:²

Mind has nothing of its own but the active form of totality; everything positive it draws from Nature. Life and mind are the appearance at different stages of an omnipotential principle, which elicits its whole definite content and development from its surroundings. The general term for this evocation of form from the environment, is natural selection. The strength of the principle lies in its emptiness. It brings with it no content. The real miracle lies in the significance hidden in Nature as a whole, and a counterpart miracle in the omnipotentiality of life and mind, which, as the active forms of totality, are able, starting from a minimum of organisation or of subjective being, at apparently random points within the external world, to elicit into organisms, selves, and civilisations, in short, into a second nature, whatever is latent in the first.

But there are two considerations which hinder us from accepting this view. In the first place, if we ask what it is that the actors and the teachers really do, we find, somewhat to their astonishment, that acting and teaching are themselves quasi-administrative activities. The actor does not invent his material.

² *Ibid.*, pp. 367-369, condensed.

He receives it from the dramatic author, together with the chief stage directions. He even receives a great deal from the director. In performing his part, he amplifies here and soft-pedals there, distributing the work of getting the rôle across the footlights, to his various assistants, including not only his trained voice, but his hands, his eyebrows, his carriage, his mustache, it may be his sword or cane or his gloves or boots. He himself controls and directs these agencies, but his activity, in both distribution and control, is just like the activity of distribution and control which characterizes the director. If the one is administrative, the other is administrative. If the one "does the work" and is creative, the other also "does the work" and is creative.

It is the same with teaching. The teacher in his classroom acts like the principal in his office. Just as the principal has assigned this task to that teacher, so the teacher assigns this part of the classroom task to that pupil. The activity of distribution and control is substantially the same in both cases. During the War, university teachers in the United States were expected to teach "War Aims" in a kind of history class. Teachers were "drafted" into this service from all sorts of departments, from animal biology and geology on the one hand, to philosophy and history of education on the other. They met one evening a week under a "director" who was usually a specialist in modern history, and were instructed in the fine points of the week's work. In their own classrooms, they were well aware that they were merely amplifiers of a wisdom not by any means their own. It is thus not at all certain that the creative work of the schools is exclusively in the hands of the classroom teachers. It is rather in the hands of a number of persons, of whom the teacher is one, but not the only one.

In the second place, the actor or teacher does not function as an actor or teacher *per se*. He needs a play and a director, or a school and an administration, in order to function. A teacher without a school is like a school without a teacher. By itself, neither is able to function. Its values are left undeveloped. It remains true, then, that, in order that values should be developed, the ordering and

administering work of the mind should be brought into play. It is in this sense that mind is creative of value.

Mind unifies, then, selects, and creates value. What else does it do? In the fourth place, it creates itself. Idealists understand this in two senses. First and foremost, mind sets itself its own problems. It is not physical reality which somehow orders the central nervous system and human brain to create Platonic Dialogues, or Beethovenian symphonies, or Homeric poetry, or even radios, automobiles, and racing yachts. Only a Plato writes Platonic Dialogues; only a Beethoven composes Beethovenian symphonies; only a highly specialized technical artist creates a racing yacht. In creating these, the artist creates, of course, overt, physically objective expressions of his vision, his philosophy, music, poetry, efficiency, beauty, and what not. But in so creating, he is also creating and expanding and developing his own insight and creative power. A man who has built one yacht can usually build a second one better. A man who has created a First Symphony can usually create a Second Symphony which will surpass the first. Mind creates, but, in creating, it is also developing its own creative power. In this sense, then, mind creates itself. Just as life means more life, so mind means more mind.

There is another and a deeper sense in which mind creates itself. When we reflect, we are aware of ourselves in this or that relation; and it is a question, whether we are ever not, at least potentially, reflective. By the device of logical abstraction, we can distinguish two tensions or direction-tendencies in mind: (1) the direction toward objects, and (2) the direction toward the knowing self. Realists treat this distinction from the standpoint of their interest in objective knowledge, by saying that the tension toward objects is primary, the "first intension," while the tension toward the self is a reflection, a throwing back of mind upon itself, and is secondary, the "second intension."

This view is unacceptable to idealists. They first point out that a logical distinction is not a temporal distinction. We do not always look first at the objects around us, and then later at ourselves. There is implicit, in *any* activity of mind, a subjective, as

well as an objective, reference. A "knowledge" which is not *my* knowledge or *your* knowledge, or *somebody's* knowledge, a knowledge which is *nobody's* knowledge, is a knowledge which is not known: that is to say, it is not knowledge at all.

Idealists then point out, in the second place, that a knowledge of objects presupposes a knowing self. Objective knowledge is not primary, but secondary. We can turn our minds toward this or that object, indifferently. But the turning is always a turning of *our minds*. These remain the same, however much the objects may vary. Mind is the central core, and the objects are on the circumference. We can get away from this or that object. But we can never get away from the mind.

In the third place, idealists point out that mind is not dependent upon a *physically* objective world for something to think about, something whose laws it can try to discover. Mind can make itself its own object, and can try to discover its own laws. In the "formal" sciences, e.g., in logic, ethics, esthetics, mathematics, etc., mind is concerned with itself, in entire independence of *physically* actual reality. Ones, twos, and threes, ideally straight lines and ideally perfect circles, are not found in *rerum natura*, perceptible to the eye of sense. Neither are premises and conclusions, and the ideal demands of deduction and induction. These are found in the ideal realm, where they are created out of the substance of the mind, by the mind itself. Knowledge of this kind is not physical, demonstrable to sense-perception, but is spiritual, demonstrable to reason.

In the fourth place, idealists point out that the physical world is, in fact, known and accepted as real only in so far as it responds to the ideal demands which mind, in its own right, makes upon it. It is only in so far as the physically actual world is orderly and systematic, only in so far as it is logical and mathematical, that it succeeds in entering into what we call "knowledge" and becomes accepted as what we call "real."

For all these reasons, then, idealists conclude that knowledge is always, at least implicitly, reflective; and that purely reflective knowledge, as exemplified in the formal disciplines of logic,

mathematics, etc., is logically prior to physical knowledge, i.e., to knowledge of a world perceptible to sense but following laws which are acceptable to reason.

They conclude, further, that mind "creates itself." That is to say, mind discovers, implicitly contained within its own demand for synthetic unity, the whole of pure mathematics, pure logic, and the rest of the formal disciplines—in a word, the whole content of the ideal realm.

In practice, this implicit knowledge is, as a rule, made explicit not, *in vacuo*, but in interactivity with the physically actual world. It is when some need arises of finding a new formula which will satisfy the mind as well as fit the facts, that the mind generates some new category or some improved technique. But the fitting formula is not a part of physical nature, and its discovery represents, not something physical, but a further stage in the mind's own growth. The history of science is the history, not of facts but of hypotheses, not of something physical but of the living and growing mind, setting and solving for itself its own problems.

And further: idealists believe that, in its essence, mind is competent to answer any question which it can raise, to solve any problem which it can set itself. Its vitality and potentiality of growth have as yet been scarcely tapped. It responds readily to all the calls we can make upon it. In creating history, it creates itself, and in creating itself, it creates history. But behind all history and all progress it remains itself, essentially creative and essentially inexhaustible. Mind is always more mind.

From the standpoint of idealism, then, mind is not physical, but spiritual. Its laws are not derived from the external physical world, but from its own inner core. They express its demands for unity, its technique of analysis and synthesis, its power of selecting in accordance with what it thinks best, its creativity, including not only its creation of values, of the arts and sciences, but also its reflective creation of its own creative self.

Consciousness.—The question of "consciousness" causes trouble to idealists, and the source of the trouble seems to be in the concept itself. It has originated in popular rather than in philosophic

intercourse, and consequently it proves unsatisfactory when philosophers try to make use of it. "Consciousness is indefinable," say the logicians. "It is *sui generis*. And its species, sensation, emotion, will, etc., are also indefinable." "We cannot define or describe consciousness," say the older psychologists, "but we all know that we have it." "Consciousness," say the later introspective psychologists, "may be regarded as having a focus, a margin, and, at the outer edge of the margin, darkness. Focal consciousness constitutes the field of active attention; marginal consciousness constitutes the field of subconsciousness, and the darkness constitutes our own individual unconsciousness." This latest attempt at description is suggestive, but, when looked at closely, is seen to be a physical metaphor which, like all metaphors, cannot be pressed hard and cannot be used for technically scientific purposes.

Idealists accordingly approach the question in their own way: not from the side of "awareness," whether in the popular or in the realist sense, but from the side of the inner essence of experience. The central core of life and mind, as the idealist sees it, is the *nisus* or urge toward self-expression, toward projecting the mind into its environment and creating there, in its own image, a counterpart of itself. It is like an enzyme, spreading around it its own principle of organization, but not becoming exhausted in the process. As Bosanquet says:³ "The power of self-consciousness is to make a self out of circumstances. The meaning of self-consciousness, the active form of totality, is to give everything its character, to be the centre in which everything in its degree tells on the import of the whole. Self-consciousness is, I do not say the ultimate form of experience, but the highest and most significant of its finite shapes. A true self is something to be made and won, to be held together with pains and labour, not something given to be enjoyed." The housewife expresses herself by creating a home life around her, the teacher by spreading light and learning, the violinist by creating a musical environment, the poet by creating an environment favorable to poetry, the sports-

³ *Ibid.*, pp. 337-338, condensed.

man by creating an atmosphere and activities favorable to sport. As the *milieu* varies from home, school, and concert-hall to the woods and the great open spaces, the outward and visible signs of the *nisus* vary accordingly. But in all *milieus*, and whatever the particular medium in which mind expresses itself, the inward and spiritual *nisus* is essentially the same and exhibits the same laws of operation.

It happens that language is peculiarly important as a medium of expression, not only in the intercommunication of experiences in our ordinary social living, but especially for the purposes of teaching in the school. It has thus become customary, in popular usage and in educational circles, to treat *verbal* expression as expression *par excellence*, and to look down a little on all other modes of self-expression as somehow "inarticulate." Our authoritative treatises on logic, for example, always have a chapter on the relation of thought and language. There they admit, of course, that certain forms of thinking are to be found in music, painting, sculpture, architecture, and other non-verbal media of expression. They admit further that thinking in such media is independent of the laws of language. But they insist, one and all, that any really elaborate, systematic thinking, any sustained and continuous effort of mind, requires, in order to support it, the technically organized and highly developed language-forms. There, if anywhere, we find the laws of thought adequately expressed. They are the same laws of synthetic unity, etc., as are found in artistic creation. But in the arts they can be grasped only "inarticulately" or "intuitively," and do not lend themselves to the operations of abstraction and the other technical manipulations in which logicians delight. Logic therefore confines itself to studying the forms of thought *as formulated in language*, and believes that, in so doing, it is studying the forms of thought *überhaupt*, in their purest available form.

In accordance with the tendency thus illustrated, it is customary in popular usage to treat artistic creation in music, painting, etc., as *subconscious* or *unconscious*, and to regard as conscious creators only those who can express themselves in words, and espe-

cially those who can express themselves clearly and distinctly, employing the "self-conscious" techniques of logic. A consciousness which does not and perhaps cannot express itself in the forms of language is usually relegated to the level of *unconsciousness*, and is in danger of having its very existence called into question.

Idealists object to this way of elevating the *linguistic* medium of expression to the position of monarch over all other media. According to Bosanquet,⁴ "Such media as sound, colour, form, rhythm, and metre have undoubtedly a logic and a necessity of their own. The universal—the straining towards the whole—is in them as in all experience; and it is idle to deny their constructive and creative *nisus* the name of thinking, because it does not operate through what we call *par excellence* logical language and conceptions attached to words. The rhythm that completes a rhythm, the sound that with other sounds satisfies the educated ear, the colour that is demanded by a colour-scheme, are I take it as necessary and as rational as the conclusion of a syllogism." As the idealist sees it, a Bach fugue or a Beethoven symphony has at least as much sustained and continuous thinking in it as the average sonnet or play; and a painting like "The Last Supper" exhibits at least as much refined technique as any prose-poem in existence. The sculptures of ancient Greece have more to tell the modern artist who looks at them with an artistic eye, than all the verbal interpretations which abound in our handbooks; and Sir Christopher Wren's real biography is better expressed in his celebrated *monumentum* than in the words of the *Dictionary of National Biography*. To translate into another medium, even when the medium into which you translate is the medium which uses words, is always to lose something of the vitality of the original. Before a great work of art, it is the would-be translator who is really "inarticulate."

From the idealist standpoint, then, "consciousness" should not be restricted to a single medium of expression, however important for the work of our schools. Consciousness should be understood as the vital sense, the sense of creative willing, which accom-

⁴ *Ibid.*, p. 62.

panies the inner *nisus* in *all* its activities. Wherever mind is present and active, selecting, synthesizing, creating values, creating living and growing selves, consciousness is present; and it is present whether we express in words what it is doing, or in actions of some other sort. And further: since in all such activities mind is itself living and growing, developing and creating itself—wherever mind is present, the self is also present. All consciousness is self-consciousness.

In the practical work of the classroom, the teacher who is convinced of the truth of the idealist theory of mind does not believe that education is an affair of physical stimulation and physical reaction. You can lead a boy to school, but you cannot make him learn. That is something he has to do for himself. It is only in so far as he accepts school problems as his own and sets himself to solve them, sharing the experience of his teachers and fellow pupils, that he makes the school work an organic part of his living and growing. You can drill him all you please. But if your drill is purely external, if it fails to appeal to his inner *nisus*, if there is no self-initiated response, all the drilling in the world makes no impression whatever. During the War, a group of professors were being drilled. "Right-turn . . . March!" came the command. Some turned to the right, some to the left; some marched forward, others stood still. Their minds were not on their work. The commands, in spite of their "intensity, recency, and frequency," awakened no responsive echo in the inner *nisus*. Nothing was learned, nothing whatever. The professors came away, as Caesar would put it, *re infecta*. *That* method of teaching had failed.

The idealist teacher tries to establish the contact of mind with mind by putting before his pupils opportunities, occasions calling for choice, for self-initiated activity. It is when the pupils select, analyze and synthesize for themselves, as they see best, the factors in the situation before them, that they become creative, creative of values and of growing and developing selves. This method is in use in many of our schools. We see it in the composition class, where the student is given a choice of themes and a choice of

treatments; where he is not told that what he puts down is "right" or "wrong," but is presented with alternative expressions so that he may revise his previous choice and choose as he now thinks best. We see it in the drawing class, where pupils select the color of paper on which they draw, the color of the crayons, the treatment of the subject, both in general and in detail, and are helped throughout by the teacher's presentation of alternatives for the pupil's own choice.

To quote Bosanquet again,⁵ "The tendency of minds is always to supplement and widen and reinforce each other on various sides and in innumerable details. In the inclusive spirit that is the result every mind contributes to the others something of its own mind and content, so that in proportion as they are thus deepened and widened together, the detail of the minimum consciousness of each assumes quite a different value and colouring from that which they possess in the minimum of normal existence."

TOPICS FOR DISCUSSION

1. If experiences are specific, individual and unique, how is it that scientists are able to cooperate in their researches, dramatists are able to cooperate in constructing dramas, and poets and musicians in creating poetry and music?
2. Does not the possibility of translation show that you *can* exchange so much Dryden for so much Virgil, and even so much Aristotle for so much Kant? And does not the creative possibility of composing in many styles, so that a musician can develop one and the same theme in the spirit of Bach, Haydn, Mozart, Beethoven, etc., show that you *can* exchange so much Haydn for so much Beethoven, or so much Mozart for so much Brahms?
3. Does not the "unifying power of mind" depend upon the material unified? We cannot unify anything and everything, but only what is objectively unifiable *per se*. Is not this true in biology and physics, as well as in English composition?
4. Can it not be said that analysis is something more than inverted synthesis, and that there is an economically more valuable kind

⁵ *Ibid.*, p. 374, condensed.

of analysis, which analyzes, not the entire datum, but only what is suitable for some purpose?

5. Look at the chapter titles in any standard textbook of logic. Can they all be reduced to "the principle of synthetic unity," or are some of the subjects dealt with irreducible?
6. Is it not nonsense to say that "mind creates itself"? Would it not have to exist in order to create anything? And is it not doubly nonsensical to say that mind "creates its own creativity"? Consider in relation to any of the high school subjects.
7. Is it not possible to maintain that knowledge presupposes *both* objects *and* a self, and that it is a mistake in principle to try to resolve either objects into phases of the self, or the self into a phase of objects? Consider in relation to high school science or literature.
8. Can there not be such a thing as *unreflective* knowledge? Consider in relation to all standard high school subjects.
9. Is it really true to say that "mind can answer any question it can ask"? Consider in relation to the child's questions, or in relation to the questions raised by scientists, in the case of high school science. Is it true in relation to history and literature?
10. When we are "groping toward the light," trying to find an answer to some problem, with our nusus in full operation, is there any point in saying that we are "conscious" until the process is concluded?

EXERCISES

How far do the following passages seem transcendental, and how far mainly empirical? Are they definitely "idealist" or partly "realist" in tone?

- a. There is no credit or merit due to life or mind, as compared with the natural environment, on the ground of furnishing definite and special lines of variation, peculiar contrivances, adaptations, principles belonging to them and not to nature as contrasted with them. Everything points to the general conclusion that life and mind elicit their whole definite content and development from their surroundings. External nature is not a masked and enfeebled section of the subject-world, but is that from which all finite subjects draw their determinate being and content. (Bosanquet.)
- b. The transmutation and rearrangement of particular experiences, and also of the contents of particular finite minds, by inclusion in

a completer whole of experience, is a matter of everyday verification. The elements of our experience are transmuted by every change of work and of scene, and, in co-operation of several minds, the constituent elements of them all are modified into members of the new and common mind which arises. (Bosanquet.)

- c. The world comes first; it works towards finding a centre, and in this working the types of our thinking and experience arise. Finite consciousness and the finite self come late, on the top of immense stores of unconscious mechanism and adaptation, which are to all appearance its precondition. It is not a *datum*; it is a light and a *r  velation* which comes only when prepared for and demanded. The standing miracle lies in its difference from brain. Mind, so far as it can be in space, is nervous system; nervous system, focussed in the *nisus* towards unity, which a standing miracle associates with it, is finite mind. There is nothing in the one that is not in the other. Mind is the interpretation of nervous system. Mind is the meaning of externality which, under certain conditions, concentrates in a new focus of meaning, which is a new finite mind. (Bosanquet.)
- d. I mean by self-consciousness the recognition of self in others as experienced in cognition, practice, the aesthetic attitude, and religion. Its essence is not the perception of the whole self as an object by itself as a subject, but the recognition in externality of a counterpart, whether discordant or harmonious, with its own principle. (Bosanquet.)
- e. Mind, as the representative of the spirit of the whole, at once knows and creates whatever in any sense is. Hence it at once creates and knows all minds, and in doing so imparts to them its nature which then is theirs. The whole of the Real is ours (because it is Mind's), in all its reality and ideality; and all our experience, history, and existence consists in the usufruct and fruition of our rightful possessions—the exploitation and enjoyment of what is ours. (J. A. Smith.)

FOR FURTHER READING

- Cunningham, G. Watts, *Five Lectures on the Problem of Mind. Problems of Philosophy*, Ch. X.
 Gentile, G., *Mind as Pure Act*, Chs. I-III.
 Hoern  , R. F. A., *Matter, Life, Mind, and God*, Lect. IV.
 Taylor, A. E., *Elements of Metaphysics*, Bk. IV, Ch. II.

Chapter IX

MIND: (c) PRAGMATIST VIEW

THE PRAGMATIST is, before all things, an empiricist, a radical empiricist. He believes in taking things as they come, as he finds them in his experience. What they may be in themselves, apart from entering into the tissue of stimulus and reaction, he neither knows nor aspires to know. His experience shows him an interactivity of organisms and environment, an interactivity primarily of biological and social significance. In this interactivity he finds himself playing a part, experimenting with the consequences of this or that behavior, and fighting his way through, if possible, to some measure of control. At the "knowledge" sought by realists and idealists, he looks askance. He does not believe in its possibility, and could not do anything with it if, by some freak of fortune, he had it. He is an actor in a drama, not a member of some dispassionate audience; and, as an actor, he has no use for the "spectator" mind.

Experience as Behavior.—Experience, as the pragmatist sees it, is essentially activity, the interactivity of organism and environment. The environment stimulates, the organism responds, and its behavior is precisely a tissue of reactions to stimulation. In this behavior the pragmatist distinguishes three levels: two sharply contrasted extremes, and a transitional or intermediate level. The extremes are (1) behavior which is vital but unconscious, and (2) behavior which is conscious and self-directed, a matter of deliberate, planned activity. Between these two levels comes (3) the level which is purposive and indicates the presence of mind, but is not conscious. At its lower extreme, mental behavior tends to shade off into vital behavior; and at its higher extreme, it is not easy to say just exactly when consciousness begins to be

present and to assume the rôle of director. Let us consider these three levels in detail.

(1) Vital behavior represents the lowest level, the simplest and most universally observable experience. Whether mind and consciousness are present or not, experience in the sense of vital process is always taking place. Our respiratory and circulatory processes, many of our glandular activities, almost all our reflex actions, illustrate what is meant by vital behavior. They take place in response to environmental stimulation, and represent interactivity of organism and environment. But, for the most part, they are automatic, not directed, responses. Large tracts of neural tissue and even parts of the brain proper may be involved. But, as when we are inattentive or asleep or under the influence of certain drugs, consciousness, calculation, and purposive control may be completely absent.

At this level, as indeed at all levels of behavior, stimulations occur when they occur. They are not continuous, but intermittent; and the same is true of our reactions. But there are enough of them at any one time to overlap, and so to keep the vital processes functioning with a semblance of continuity. Experience, in fact, may be represented by the analogy of a two-cycle, one-cylinder gasoline engine in operation. The gasoline (the stimulus) is fed to the cylinder intermittently in small doses. The explosions within the cylinder (the reactions) are also discontinuous and intermittent. But their effects overlap, and the flywheel (the vital process) revolves continuously.

At this simplest of all behavior levels, life and experience emerge as functions of the environment which stimulates and supports the organism, no less than of the organism which reacts. In fact, life and experience consist in this interactivity; and, as the pragmatist sees it, this interactivity is primarily vital or biological, rather than merely physical. The realist, as we have seen, reduces biology to physics and speaks of *physical* interactivity. But this, from the pragmatist standpoint, is an unnecessary refinement of abstraction. It oversimplifies and so falsifies the actual empirical situation. The concrete situation, as the pragmatist sees it, is

typically as follows: Some stimulus, e.g., of fear, or hunger, or sex, disturbs the equilibrium of organism and environment, and interaction takes place. The response to this stimulation effects alterations both in the organism and in the environment, until a new equilibrium is reached. The particular interaction then ceases. The stimulus ceases from troubling, and the organism is again at rest in its environment—until some new stimulus creates a new situation. Life is just one thing after another. At the simple level which we are at present considering, there is, as a rule, no definite planning, no consciousness, and, indeed, nothing that would be considered evidence of mind. There is an automatic, unconscious response: some slight change in respiration, some reflex reaction, some folding of the hands in sleep.

(2) At the other extreme we have fully conscious behavior. Mind is definitely present, comparing and weighing alternative courses of action, selecting, directing, and controlling responses until a conclusion, satisfactory to the organism, is reached. Consciousness is definitely present, in the form called by Plato "conversation of the soul with itself." Consciousness, in a word, is a social, and indeed a vocal, phenomenon. Pragmatists define it as "the internalization of a social situation," i.e., the situation in which a man directs his own responses through the intermediation of linguistic concepts, as in the case of the Prodigal Son. When the son reached the end of his tether and found that no simple, automatic or semi-automatic response restored his equilibrium in relation to the environment, he was thrown back upon himself, and exemplified the internalization of the social situation by talking to himself. "I cannot dig. To beg I am ashamed. I will return to my father, and will say to him, Father, I have sinned. . . ." Consciousness, as the pragmatist sees it, is typically of this form. It is a kind of internal speech, employing linguistic symbols to direct and control the responses of the organism until a satisfactory result is reached.

(3) Between these two extremes—of purely automatic reaction on the one hand, and of explicit, internal speech on the other—there is a wide field of semi-automatic response to stimulation,

which is regarded as the mental level, the behavior level at which mind, in the sense of purposive reaction without internal speech, makes its appearance. At the lower end, this kind of semi-automatic reaction is exemplified by such an activity as walking down a street without attending consciously to the walking. We have set ourselves to walk from point A to point B, and our conscious, internal speech and planning then lapse, as far as the walking is concerned. The coordination of movements of muscle and limbs which represents walking is controlled, not by the brain proper, but by the cerebellum. The stimuli, to which walking represents the response, are constituted partly by "resident sensations," i.e., the sensations from the limbs and feet themselves as they alternately come in contact with the pavement, and partly by "remote sensations," i.e., the sensations from eye and ear which keep us in touch with possible obstacles. In walking, we thread our way through and past these obstacles without, as a rule, noticing them to the extent of internal speech-planning. The movements we make are semi-automatic. They are purposive to the point of being successful. They are directed in accordance with a plan. But we do not have to attend to them all the time, and may not be attending to them any of the time. As long as everything goes smoothly, we just let it go, of itself.

Almost every kind of activity which is habitual with us and has become a matter of routine, is of this kind. The accomplished pianist pays no attention whatever to the physical movements being made by his well-trained fingers, forearms, shoulders, and body. It is, in fact, difficult to say what, if anything, he does attend to. When he is performing some concert piece which he knows well, he "sets himself" to perform that piece and then just lets himself go. Many performers would say that they were letting the music "come through." Their dominant feeling is of listening to the music as it comes through, enjoying it, living in its spirit. For the most part, there is no conscious self-direction of the fingers, any more than there is in typewriting. Any such directive consciousness would, as a rule, interfere with the performance and would spoil it. The performer is more truly in a dream,

carried away by the music like the rest of the audience, in a state of twilight consciousness, and his fingers react in a semi-automatic way. Their movements are directed partly by resident, and partly by remote, sensations, much as the feet are in the activity of walking. As long as the music comes through smoothly and without special effort, the performer's consciousness, in the sense of definite, internal speech, planning and directing his activities, has lapsed. It is only with beginners,¹ or when things do not go smoothly, that special attention is called for, and we observe the performer "counting" or saying No to himself or—if the performer is a de Pachmann—saying *Welche Virtuosität!* It is only on such occasions that the performer "comes to the surface" and takes personal charge of operations.

It is especially in social situations, situations involving the interactivity of two or more persons, that the pragmatist believes mind to make its appearance. In such situations, in so far as they are habitual, almost purely matters of routine, our reactions, although purposive and directive, are of the semi-automatic type. To the head of a large firm, his employees are almost as much a part of the office or salesroom as the rest of the furniture, and his reactions to the one may be, and often are, as unconscious as his reactions to the other. His "Good morning!" when he enters the office may be as much a matter of routine as hanging up his hat. In dictating letters, if this is a part of his regular routine, he may easily pay no more attention to his stenographer than to a dictograph machine.

Consciousness and its Lapses.—In such situations, as long as everything flows smoothly, there is no call for the internal-speech level of planned and directed activity, and it is not in evidence. A professional manner is an adequate substitute, as a rule, for conscious attention. The schoolboy may, to all appearances, be watching his teacher with rapt attention. But his *conscious* mind, if functioning at all, may be completely engaged elsewhere. So,

¹ Cf. Thorndike, *Psychology of Learning*, 1921, p. 232: "The pupil, in at least eight cases out of ten, says to himself what he reads, and says to himself what he is going to write."

too, his teacher may be looking professionally alert; and yet, as far as the pupils are concerned, as long as things go smoothly, the teacher's consciousness may have completely lapsed.

Fluctuation of attention is a well-established fact in modern psychology. We can attend to only one thing at a time, and to nothing for very long. But attention to A involves *inattention* to B, C, D . . . , so that at any given time the field of marginal consciousness, i.e., of lapsed consciousness, is almost infinitely greater in extent than the field of focal consciousness. On the first day of school, a teacher may be absent-minded in respect of everything but classroom work. On the evening when he is to make his presidential address to a scientific congress, a distinguished speaker may be so absent-minded in relation to everything but the content of his speech, that when he goes to his hotel to dress for the dinner he may set himself to take off his coat and vest, and may start winding up his watch as he takes off his vest, repeating internally the more telling phrases of his speech. His consciousness being fully occupied by these phrases, his purposive movements of undressing, being continued automatically and without conscious direction, may put him to bed and to sleep, so that he fails to appear at the banquet in his own honor.

Consciousness thus lapses in respect of particular situations. But it *can* lapse in respect, not merely of this or that situation, but of *all* situations, over a considerable period of time. When we are *distract* or in a "reverie," there is no definite internal speech directed to this or that problem. Our attention is dispersed and our consciousness wholly marginal, i.e., lapsed. As people say, they have "lost themselves" for the time being, although their reactions to the slight stimulations coming from the environment may have been purposive enough to preserve the organism from any unpleasantness. Hypnotism, fatigue, sleepiness, and the action of certain drugs produce this kind of effect; and emotional strain, or even a physical shock, may produce similar lapses. Viewed introspectively, as by William James and the psychologists of his time, the stream of consciousness appeared to be continuous; but when checked by objective observation, it is found

to be anything but continuous, not only in detail, in relation to this or that focal content, but in general, in relation to all contents taken together. There are plenty of occasions with all of us, when we just sit and don't think, i.e., when consciousness, in the sense of internal speech, planning and directing our activities, is simply not there.

Mind = Social Behavior.—But when consciousness lapses, mind, in the sense of purposive direction of our behavior, does not necessarily lapse along with it. On the contrary, experimentation to test the effect of fatigue and drugs shows that after all consciousness, in the form of internal speech directed toward controlling activity, has disappeared, the usual professional manner and the habitual ways of reacting carry the organism safely through most of the social situations which arise in the ordinary course of events. The reactions are semi-automatic, but, by all the tests which can reasonably be applied, they are intelligent. The tired host, long after he has given up any attempt at conscious control of the situation, still goes through the motions of welcoming the coming, and speeding the departing, guests. He responds to all presumable jokes with his stereotyped, "Ha, ha, very good!" long after he has ceased to tell himself what the point is. He still interacts with the others sufficiently to play a very fair game of bridge, although he makes no attempt to tell himself what trumps are and what cards have been played.

"Mind," then, for the pragmatist, is that form of behavior, especially of social behavior, in which there is purpose and direction, even direction by speech and linguistic concepts, but in which clear-cut consciousness, in the sense of internal speech controlling the organism's reactions, is not necessarily present. What is especially characteristic of the pragmatist's position is, partly, the insistence upon mind's being behavior, activity, interactivity with a biological and social environment, rather than some form of passive contemplation or awareness. Mind is a part of the tissue of events, interactive with the rest of nature, and just as real and as genuinely causative as anything else in *rerum natura*. In the second place, as behavior as the interactivity of events which

are all transient, mind is not something permanent, but changes as the elements which interact change, and comes and goes. Just as the behavior which we call our "form" at tennis, or at the piano, or at golf, is something that comes and goes, so it is with the behavior which we call "mind" or "thinking," and even with "consciousness." It is intermittent, and varies in ways which we can neither forecast nor entirely control. It is, as the pragmatists say, not a "substance" but a "function."

In the third place, while we speak of "our" minds and "our" consciousnesses, it is only to a limited extent that we are justified in so doing. The behavior which we call "ours" is a complex in which our organisms, with their brains and nervous systems, play a part indeed, but a part which is often very small. The organism is only one factor in a situation which involves many other factors; and as the other factors change, the total result changes to such an extent that, while there may be a slender thread of connection, there is little evidence of continued, centralized control. Our minds are, in a word, relatively discontinuous. They are like successive beads upon a string. But the string is somewhat tenuous. It consists of our organism, the one constant element in the various complexes which we speak of as "our" mind. But the organism has little real unity or continuity, except in so far as we are able to control it by constructing the active idea of a *persona* or self which remains relatively permanent. For further discussion of the *dramatis persona* which the active organism accepts as its "self," we must refer to an earlier chapter. In any case, when we speak of behavior at *any* level as "ours," it should be understood that "we" belong to and are a function of the behavior, rather than that it belongs to and is a function of "us."

So much for a brief characterization of the pragmatist view of mind and consciousness. They are usually considered together because it is hard to say when consciousness begins to be present. There are many times when internal speech—which can be detected by testing the incipient movements of the larynx, and sometimes of the lips, tongue, and throat muscles—itself seems to be

semi-automatic, if not entirely automatic. There are many cases in which speech activities, while demonstrably present and attempting to control the situation, are feeble and ineffective. So too there are other times when the organism is in full control of the social situation, directing the activities of other organisms by signs and symbols of all sorts, including linguistic concepts, but, as when under the influence of hypnotism or drugs or in a somnambulant state, appears to be behaving unconsciously. It is difficult to define infallibly just what factors are essential to the appearance of consciousness, but internal speech is at present accepted as good evidence.

In the work of the classroom, the pragmatist teacher, convinced that mind or social behavior consists, as far as the pupil's organism is concerned, of semi-automatic reaction-tendencies, i.e., of a number of detached concrete skills and techniques, endeavors to build up in the organisms before him—by inviting their eager cooperation—such skills and techniques as are likely to prove useful in the social interactivities of our modern industrial democracy. This means that he will train the pupil, while he has him in school, in the same skills and techniques as the pupil will find in use outside the school. We find this exemplified, not merely in the engineering departments of our modern universities, but in many of the classes in our high schools. But the pragmatist would like to see it found in *all* educational establishments. The teacher does not drill the pupils so as to produce in them a narrow, mechanical efficiency on which they can immediately cash in, but rather educates them in the *use* of the modern skills and techniques, leaving them flexible and adaptable, rather than rigid and fixed.

As far as consciousness is concerned, namely, the direction and control of action by linguistic concepts accepted and spoken internally, analyzing and comparing alternatives, selecting and emphasizing the line of action selected, trying this and that alternative, and modifying procedures until practical success is attained, this is something which the teacher can stimulate and

encourage by example rather than by precept, but cannot impart directly. In classroom and laboratory the pupil develops this use of consciousness by the contagious influence of his fellow pupils, even more than by association with the teacher. But as an activity, it develops and grows by practice; and the teacher sees to it that occasion and stimulus are not lacking.

In conclusion, let us sum up briefly the positions of realist, idealist, and pragmatist. For the *realist*, mind consists in the interactivity of an organism having a well-developed brain and nervous system, with its environment. Both organism and environment are thought of in terms of physical science, and the interactivity which constitutes mind is a specifically physical activity. If consciousness is present at all, it is present merely as a subjective, non-physical awareness or contemplation, which neither adds nor subtracts anything in relation to the real factors of the objective situation, which are all physical.

For the *idealist*, both the organism and its consciousness (if any) on the one hand, and the physical environment on the other, are empirical phenomena of a deeper reality which is spiritual. This deeper reality is "mind" in an ideal or transcendental sense, creating itself and its own problems, and, in this creativity, creating also the environment, the "other" or "counterpart" with which the self it has created, interacts. But the real life of the mind, although exemplified in the movements in the space-time medium in which this life expresses itself, is not subject to the laws of the medium, but follows its own laws, which are spiritual and entirely transcend physical science.

For the *pragmatist*, as for the realist, the empirical interaction of organism and environment represents the only reality there is, and the "transcendental self" or "mind" represents a pure myth. But the pragmatist's "mind" is biological and social, rather than physical; and empirical "consciousness" is no dispassionate, contemplative "awareness," but is itself activity, as definitely causative as any other factor in the concrete situations in which consciousness emerges. Consciousness may not be a "substance." It may be only a "function." But, when present, it really does function.

TOPICS FOR DISCUSSION

1. How far is it true that the pragmatist "could not do anything with" the realist type of knowledge, or the idealist type of knowledge, if he had it? Consider with reference to high school physics, chemistry, biology, or history.
2. Does it seem reasonable to speak of "experience" where there is no "consciousness" at all? Do the circulatory and glandular processes, in so far as we are unconscious of them, really enter into our "experience"? Can we be said to "experience" those features of the environment which we do not notice at all?
3. How far is the teaching in high school intermittent and discontinuous, and how far can we reasonably speak of "overlapping," when different subjects are taught in the different teaching periods of the school day?
4. Do we not have conscious behavior when the situation is *not* "internalized," but when we are directing, through speech, the activities of other human beings? Or is it "conscious" only when we have *internal* speech *as well*?
5. Is there really a level at which action is directed purposively, but without even the rudiments of internal speech? Consider in relation to learning golf or acquiring some skill, and in relation to routine behavior.
6. Why is it especially in *social* situations that pragmatists think "mind" makes its appearance? Are all semi-automatic activities *social*? Consider, e.g., the semi-automatic activities of a single individual when no other individual is present. Are these situations rightly regarded as *social*?
7. Is it really possible to play bridge without internal speech of any sort?
8. Just how does internal speech succeed in becoming physically causative, directive of behavior?
9. If our minds are relatively discontinuous, why should we attempt to speak of them as if they possessed any kind of unity extending beyond the present occasion? Is it sound to regard my mind of a year or a decade ago as though it were somehow the same as my present mind?

EXERCISES

Try to identify the following passages as distinctively (1) realist, (2) idealist, or (3) pragmatist:

- a. The mind is able in certain directions to overflow the brain and to indulge in activities which are not identical with those of the brain, even if they cannot take place without them. The mind, though immanent in the body, is able to transcend it, and, in thus transcending it, plainly proclaims its refusal to be identified with it. (Joad.)
- b. Thinking, reasoning, planning, reflecting, deciding, remembering are activities of living beings. If we use the word mind in its common everyday meaning, it signifies just such things as these. Mind is thus almost synonymous with behavior, for in all these things the living being is *doing* something, usually adjusting himself to his surroundings. (Patrick.)
- c. It would seem difficult to deny the efficacy of mind in the world. It seems to be the most potent thing in history. In the past century it has made the world over and promises to remodel it again in the not distant future. It seems difficult to understand how anyone could say that *inventiveness* and *reflective thinking* have no efficacy in the physical world, or how human *desire* could have no effect in the world of economics. (Patrick.)
- d. We are led back to the *event* as the ultimate reality. The event, as Mr. Whitehead explains, is the emergence of something into actuality. . . . It appears, then, that mind has not lost any of its reality by the discovery that it is an activity or form of behavior, since thereby it partakes of the very nature of reality. (Patrick.)
- e. Reasoning is also concerned with the more highly abstract and theoretical problems. No matter how abstract and abstruse many of these problems appear to be, they must be regarded as having been derived from less abstract conditions, and eventually find their genetic origin in some of the concrete problems of human conduct. Moreover, the significance of this type of rational activity must be regarded, in the long run, from the standpoint of its prospective utility in effecting a more adequate adjustment to the various concrete conditions of life. (H. A. Carr.)
- f. Crossing bridges in advance, partially solving the prospective problems of life, constitutes one of the prime functions of the rational

process. In securing a medical education, the student is acquiring a ready-made system of partial solutions for the various exigencies which he may be expected to encounter in the practice of his profession. (H. A. Carr.)

- g. The stimulating possibilities of an idea are a function of the nature of the object and the character of its associations. Any idea is a stimulus to a great variety of responses. The degree to which a given idea affects us and the character of the response elicited are functions of the ever varying circumstances in which the thought occurs. The thought of food will energize one to action only when he is hungry. (H. A. Carr.)

FOR FURTHER READING

Bode, B. H., in *Creative Intelligence*, pp. 232-255.

Dewey, J., *How We Think*, pp. 1-70, and Ch. XIX.

Hart, J. K., *Inside Experience*, pp. 117-130.

Chapter X

KNOWLEDGE: (a) SENSATION

WE NOW come to the last of the three fundamental problems of educational philosophy: the problem of knowledge. To common sense, there is no "problem" at all. Everyone knows what "knowledge" is; and everyone knows that it is the business of the educator to "implant knowledge" or "instill knowledge" in the rising generation. But as soon as we inquire just what is the nature and function of this "knowledge" which everyone knows, we discover that there are a number of theories of knowledge, and that the common-sense notion is soon lost in a cloud of theory.

At the present day, it is usual to try to keep in touch with science by simply accepting the psychologist's account of sensation (the gateway of knowledge), memory (the storehouse of knowledge), and learning (the process of knowing). What is not usually observed is that the psychologist himself has a pronounced bias in some one of the chief philosophical directions. This bias, whether he is aware of it or not, influences his views to such an extent that what a psychologist with the common realist outlook has to tell educationists is logically incompatible with what an idealist psychologist has to tell us, and with what the pragmatist-minded psychologist teaches. We shall find that these differences affect not only their general theories as to the nature and function of knowledge, but their interpretations even of such apparently simple matters as sense-perception, memory, and learning. Let us proceed to consider these three views of knowledge, beginning with the realist position.

Realism.—The *realist*, as a rule, proclaims that he has *no* "theory" of knowledge. He has observed that people with theories seem

to get further and further away from the simple fact that we do have knowledge of some sort. We know, and we know that we know. It may be hard to explain; but the simple fact is undoubted. For to try to doubt it presupposes that we know at least our own doubts, that we know what we are saying, and know how our reasons affect the situation we are criticizing, etc. In fact, the realist is prepared to demonstrate that *any* significant sentence which an intelligent man can use presupposes the possibility of knowledge in general, and the actuality of some knowledge in particular. He therefore leaves "explanations" and "theories" to others and, for himself, is content to start with the plain fact: We know, we know that we know, and we know what we know. Thus Russell says:¹

Are we to include in perception the element of unconscious interpretation? It can only be eliminated by an elaborate theory, so that what remains—the hypothetical bare "sensation"—is hardly to be called a "datum," since it is an inference from what actually occurs. I should say that a great deal of the interpretation that usually accompanies a perception can be made conscious by mere attention. This part ought not to be included in the perception. But the part which can only be discovered by careful theory, and can never be made introspectively obvious, ought to be included in the perception.

If asked to illustrate this so as to make his statement more concrete, the realist first shows that, in general, there is a correspondence between what we call our "knowledge" and the facts of physical nature. We know, let us say, the law of gravitation. It is obvious that it corresponds to the facts; otherwise, we could step out of windows and off cliffs with impunity. The content of our scientific textbooks constitutes "knowledge" of this sort. If it did not really correspond with fact, our automobiles, airplanes, and radios would not be as reliable as they are; the steadiness of our environment would disappear; and the reign of Chaos and Old Night would be upon us. It is obvious, however, that with the aid of science we do control the physical environ-

¹ Bertrand Russell, *The Analysis of Matter*, 1927, pp. 188-189, condensed.

ment. Therefore, the content of our scientific textbooks is something which we know; and we know that we know it.

If pressed further, the realist bases his scientific knowledge upon sensory observation, and upon experiments which are verified by appealing to sensory observation. Sensation thus represents the final court of appeal. We know when we feel warm or cold. We know when we feel hungry or angry. We know when we see red, or green, or blue. We know when we hear tones of high or low pitch, tones which are loud or soft. And so on and so forth. There is no possibility of doubt in such cases. We know, we know that we know, and we know what we know.

Such knowledge is beyond criticism. No one else can see inside us and tell us that we feel warm when we know that we feel cold. When we feel cold, we feel cold, and no one can know that better than we do ourselves. No one can reason us out of it. We might admit the reasons, as reasons. But we still feel cold. The simple fact is not a reason, but a fact: something we just know.

All this is, to the realist mind, so obvious that it cannot be called a "*theory* of knowledge." It is a simple statement of obvious fact. John Locke, who holds a view of this kind, simply "sends us to our senses," so that we can realize for ourselves that it is so. When we see red, we know that it is red and not blue. When we hear a sound, we know that it is a sound and not an odor or a taste. When faced with a simple or unmixed idea, such as "red" or "loud" or "sweet," we know both what it is and what it is not. We identify red, and we distinguish it from other simple ideas. We identify loud, and differentiate it from all other experiences.

On this ability to identify and distinguish the ultimate constituents of knowledge, the *sensa*, depends, from the realist standpoint, all our knowledge. The simple ideas, all properly analyzed out and distinguished from one another, provide a kind of alphabet of knowledge. Combining these qualitatively into complexes containing two or more letters of the alphabet—"red is red," "red is not blue," "red is a color," "red is not a sound," etc.—on the basis of identities and differences gives us what we might call the syllables of knowledge. Further combinations,

based upon quantitative identities and differences, give us the words, sentences, and paragraphs of knowledge.

From this point of view, knowledge itself is a system of relations between ideas. Relations are all, in the end, matters of identity and difference; and ideas are all, in the end, *sensa*, or something of the sort. It follows that, where the ultimate *sensa* are known and the ultimate relations of identity and difference are known, the systems built up block by block, without gaps anywhere, are also known. And science is precisely such a system. From the realist standpoint, then, we conclude that we are in touch with the facts from the beginning to the end of the work of constructing science; and that, so long as we analyze down to simple ideas and to relations of identity and difference, any further syntheses we construct are themselves factual and objective, and are, as science is, matters of knowledge. The *sensa* are the basis of all "matters of fact," and the relation of identity and difference is the basis of all "ideas of relation."

As to psychology, the realist is well aware that the psychologist teaches that sensation is mediated by neural mechanisms consisting of sensory nerves which select, pick up selected and (in many cases) amplified vibrations of this sort or that, and transmit the stimulus, by some kind of physico-chemical process, to the spinal cord and (in certain cases) the brain, and that the disturbance then proceeds either to the glands or to the motor organs (or both). That is to say, the realist understands that the mechanism underlying sensation is an affair of transmitted motions. If he cares to do so, he can express his view in purely physical terms. As Drake puts it,² "In physical terms, knowledge consists in our afferent and efferent relations to the things known; that is, in events in the sense-organs, the neural arcs, and the muscular system. This process gives us in the brain a group of sensory elements corresponding point by point to the characteristics of the outer things which are known, and a group of motor tendencies adjusting the body to them. . . . The bodily organ that has these . . . events, is the mind."

² Durant Drake, *The Mind and its Place in Nature*, 1925, pp. 50, 68.

At the present day, *critical* realists tend to push such explanations to extremes. But writers who stick to the main position of realism, as suggested by John Locke and formulated more recently by Cook Wilson, refuse to go into the matter further. Their reason for refraining is that to go further involves trying to "explain" and "theorize" in such a way that we easily forget the real fact: the fact that, whatever the mechanism and however it "mediates," we *know*, and we know that we know, and we know what we know.

Idealism.—The *idealist* much admires the directness, the clearness and distinctness, and the logical coherence of the realist view. "When we know, we know." "When we know the elements, and each step in construction, we understand the resulting structure." How true! How true, that is to say, as logic, with each statement implying the rest. But is it true, not merely as logic, but also as fact? Do we, in point of fact, really know *sensa*, and the relation of identity and difference in all its concrete applications, qualitative and quantitative? It would be most encouraging, if we actually did. The work of science would be easier than we find it, and a great deal of our vague groping after the discovery of nature's secrets would disappear in the light of such clear and distinct knowledge.

But do we really know the *sensa*, on which the realist bases his structures? In the not so distant days, when some of us studied introspective psychology in graduate schools which specialized in that very thing, we were informed that correct introspection was something more than Berkeley's "looking within." It required a "trained" introspectionist to discount his subjective bias and see, not what he wanted to see, but what was there to be seen. When a group of graduate students, in process of receiving precisely this training, cooperated in writing up an account of some experiment, it was noticed that A relied on the introspections of B and C, while B relied on the introspections of A or C, and C preferred *anyone's* introspections to his own. Each student felt that he personally was "making up" the introspections which were demanded, but that the others were probably succeeding in really

doing what was required of them. Nowadays, apparently, no one believes in "introspections" any more, either his own or anyone else's. From this evidence, it hardly looks as though we really know *sensa*.

Again, if we concentrate upon a fairly simple stimulus, e.g., a piece of (Hering) red paper, and try to describe exactly what we see, we come upon unsuspected difficulties. If we manage to keep our eyes steady, the surface at which we are looking seems to go through a number of puzzling changes. It turns green in a few minutes, then red again, and then green again. It turns surprisingly light, and then dark, and then light again. It seems to be, not one surface, but two or more surfaces, transparent and showing through one another. In fact, it is an almost perfect illustration of the ancient dictum, "All things flow; nothing abides." If, in the case of such a changing experience, we ask, "Just what is the *sensum*?" it is not easy to say. It looks as though the simple ideas in which the realist believes—the "red," "green," "blue," etc.—are qualities abstracted from the actual experience, and standardized. That is perhaps why they can be identified and differentiated. It looks as though they are formalized concepts rather than anything directly experienced.

The sensory qualities are thus, as the idealist sees them, not starting points, but resultants of elaborate processes of comparison and contrast, of questioning and analyzing, which result in differentiations and identifications. The mind is active in all these processes, and cuts off and fixes parts of the content of its experiences in conceptual form, separated from the fluid process and set on one side as unitary, standardized elements.³ All psychologists know that it is perfectly possible to confuse one color with another, one tone with another, one size or shape with another,

³ The critical realist is partly in agreement with this position. As Durant Drake says (*Mind and its Place in Nature*, p. 131), "Qualities are blurred impressions, imputations made by organisms in their dealings with masses of these atoms. They are labels that sum up for convenient handling complex events which cannot be attended to in detail." Bergson criticizes the use of such "labels" in place of intuitive insight into the detailed flow of life, as external, geometric, and ultimately materialistic.

to see what is not there to be seen, and not to see what is staring the "trained observer" in the face. Suggestion can so preoccupy the mind that we apprehend only what we are expecting to apprehend, whether it is there or not. Hopes and fears, desires and aversions, prejudice our judgment in analogous ways.

It is our backgrounds which determine our outlooks, and our backgrounds we have always with us. An idealist-minded social worker and a realist-minded policeman, walking together through the selfsame slum, simply do not see it in the same way, and nothing on earth can make them do so. If their knowledge were really built up, block by block, out of simple *sensa*, they would, of course, come to see things in the same way. But they do not. That is because, according to the idealist, not the *sensa*, but their minds, with their individual backgrounds and outlooks, are their real starting points from which they can never get away.

The mind has its own laws, selecting, analyzing, synthesizing, and unifying in systematic ways the content of its experiences. These laws are illustrated by learning to find one's way about the planet *tellus*, by constructing the rules of a game like chess or bridge, or by singling out a number of minute elements such as "red," "loud," and "rough," and calling them "simple ideas" or *sensa*. In every case, what the mind constructs is a system of interrelated concepts, and idealists accordingly define knowledge as "a whole of related elements."⁴ What makes the whole a whole is the mind. What relates elements to one another within the whole is the mind. What selects and standardizes the entities designated "elements" is, again, the mind.

The content of our scientific textbooks, which is what usually passes for "knowledge," is thus, from the idealist standpoint, a cross section through the work of the mind. As the mind's work is always in process, any such cross section represents a temporary and transient summing up of the results reached by a certain time. It is not final, something "just known," but represents

⁴ This is Kant's definition (*Critique of Pure Reason*, Watson's *Selections*, p. 56).

rather "our present conclusions," or "what we are coming to believe."

The ~~realist~~ believes that, in physical science, we have a reliable description of ultimate reality, of things as they are in themselves. The idealist believes that, in physical science, we have a transcription of reality into a clef whose keynote is established by our central nervous system. Animals with different sense-organs have different transcriptions. Our human transcription which, with the realist, passes for "knowledge," requires, as the idealist sees it, to be supplemented by insight into the nature and function of mind as pure intelligence. Then we can see through the transcriptions to the reality behind it. That reality, from the idealist standpoint, is spiritual. To understand this is to have knowledge. And when we have this knowledge, we can see why phenomena which are colored by our sensory processes are so fluctuating and unsatisfactory when taken as reliable measures of reality.

Pragmatism.—The *pragmatist* has no faith whatever either in the realist or in the idealist account of knowledge. A systematic description of the content of experience, in terms of identified and differentiated *sensa*, simply arouses his critical powers. "Systems" he regards, as such, with suspicion. Investigate *any* system, Scholastic, Hegelian, or Victorian-scientific, and you are sure to find some form of the celebrated Bed of Procrustes. Genuine investigation is always particular, individual, concrete, and relative to a particular situation. Systematization is always excessively general, universal, abstract, and would-be absolute. It is always the work of second-hand thinking, and tries to underrate the work of original research. It is like a university in which the institution is the whole thing, where the registrar's office is the central reality, and the individual teachers and students are merely so many field workers whose function is to supply the office with figures for its registers and diplomas.

Again, the pragmatist does not believe in *sensa* as elements which enter into some static construct called "knowledge." Psychology tells him that the nervous system is selective and active, that sensory stimuli pass over into motor and glandular activi-

ties. Its function is to serve the purposes of action, in a world where reaction has to be quick if the individual is to survive. The notion of a contemplative thought, of a simple awareness of apprehension, which is like a wax tablet registering the impressions and laws stamped upon it by a physical nature, seems to him altogether grotesque.

The standpoint of the physicist represents an oversimplification, a narrow abstraction which is unjust to the facts of concrete experience. What life calls for is not contemplation, but action; and to neglect the call is at our own peril. Sensation is primarily a cue to this or that reaction; and while, no doubt, the contents of sensation can be abstracted, compared, identified, differentiated, standardized, and utilized in building up fancy systems which it pleases some people to call "science," pragmatists understand perfectly that, in so doing, the physical realist is getting further and further away from the concrete realities of experience upon whose importance the pragmatist insists.

Idealist metaphysics, from the pragmatist point of view, takes us even further away from the empirical world of action and reaction. A "pure intelligence" which deliberately withdraws from the biological and social actions which endow empirical existence with its interest and rich color, in order to sit aloof in some remote corner, and say to itself, "Things are not what they seem; behind all this is something ultimate which is spiritual, generating, in some timeless act of reflection, the laws, and perhaps also the details, of what we actually see," seems, to the pragmatist, a terrible misuse of intelligence. The function of intelligence is to solve practical problems by devising appropriate reactions, and thus to add to the interest and richness of concrete living. To withdraw into some transcendental recess of the imagination is to commit intellectual *hara-kiri*.

"Knowledge" is thus, for the pragmatist, a will-o'-the-wisp, an *ignis fatuus* which leads realists and idealists away from the true business of living beings, namely, successful action in a world of biological and social concrete situations. It is only as a cue to initiate and guide such action that sensation, as the pragmatist

sees it, has any genuine function. The business of the educationist is not to "implant knowledge," but to train in techniques.

TOPICS FOR DISCUSSION

1. Take any significant sentence (e.g., "In November, 1929, the Legislature selected the site in Fort Garry, already occupied by the Manitoba Agricultural College since 1913, as the permanent site of the University"), and show how it presupposes (a) the possibility of knowledge in general, and (b) the actuality of some knowledge in particular, from the realist standpoint.
2. Why should realists object to a "theory of knowledge"? What possible objection can there be to a theory, provided that it is a sound theory?
3. How can we know that "our knowledge corresponds with the facts," unless we know both "our knowledge" and "the facts," and can compare them to see to what extent they "correspond"? But how can we know "the facts" independently of "our knowledge" of them?
4. What advantages, as furnishing a basis for knowledge, has sensation over logical construction? Is sensation more clear and distinct, more amenable to proof and disproof, than logic? Consider with reference to " $2 + 2 = 4$," "Beauty is Truth, Truth Beauty," "January is normally our coldest month," "Napoleon considered himself a man of destiny," "Where we are heading, socially and politically, no one knows."
5. If it is true that "the sensory qualities are not starting points, but resultants, . . ." just what is the situation with which the mind starts in its pursuit of knowledge? Consider with reference to high school science, or literature, or history.
6. "What makes a whole a whole is the mind." Consider the meaning of this with reference to (a) a steam radiator, (b) the poem *Kubla Khan*, (c) Periclean Athens or Elizabethan England, (d) the theory of physical relativity associated with the name of Einstein.
7. Why should the idealist regard reality as ultimately "spiritual"?
8. "Nature is not physical, but biological and social." Discuss the meaning and truth of this statement with special reference to high school chemistry.
9. "Sensation is a cue to initiate and guide action." Discuss with refer-

ence to (a) walking down the street, (b) reading the newspaper, (c) reading a science textbook, (d) reading a play of Shakespeare, (e) playing a sonata of Beethoven.

EXERCISES

Try to identify, as distinctively realist, idealist, or pragmatist, the following:

- a. Percepts are part of the physical world, and are the only part that we can know without the help of rather elaborate and difficult inferences. (Russell.)
- b. What we know of the physical world falls into two parts: on the one hand, the concrete but disjointed knowledge of percepts; on the other hand, the abstract but systematic knowledge of the physical world as a whole. (Russell.)
- c. We perceive events, not substances; that is to say, what we perceive occupies a volume of space-time which is small in all four dimensions, not indefinitely extended in one dimension (time). And what we can primarily infer from percepts, assuming the validity of physics, are groups of events, again not substances. (Russell.)
- d. One interpretation involves less inference than another, and is therefore less likely to be wrong. (Russell.)
- e. What we know or contemplate is the object itself directly. The object as revealed to us is in no sense in the mind. (S. Alexander.)
- f. The mind does not apprehend the space of its objects, i.e., their shape, size, and locality, by sensation, but by a form of apprehension simpler than sensation. I call this mode of apprehension intuition. Intuition is no more direct than sensation. All our apprehensions bring us face to face with their objects. (S. Alexander.)
- g. Things exist in their own right, prior to and independently of our knowledge of them. Experience reveals, but does not create them. (Drake.)
- h. Our perceptual data are *presumptively* the very things known; except as we become reflectively aware of illusion, we suppose ourselves to perceive things as they are. But this presumption is open to question. The varying *sensa*, however "out there" they may seem to be, are simply our own individual sensations mistakenly referred to the outer world. (Drake.)

- i. All our physical knowledge is got from *sensa*. (Drake.)
- j. The real world is all about us, and we are part of it. Science has gone ahead, laboriously studying, correcting, interpreting the data of experience, and gradually creating thus a body of *revised* data, a systematic and consistent set of concepts which undoubtedly constitutes, so far as it goes, a *correct knowledge of the existent world*. (Drake.)
- k. The element of interpretation can only be eliminated by an elaborate theory, so that what remains—the hypothetical bare “*sensation*”—is hardly to be called a “*datum*,” since it is an inference from what actually occurs. This is conclusive. Perception must include those elements which are irreducibly physiological, but need not include elements which come within the sphere of conscious inference. A great deal of the interpretation that usually accompanies a perception can be made conscious by mere attention. This part ought not to be included in the perception. But the part which can be discovered only by careful theory, and can never be made introspectively obvious, ought to be included in the perception. (Russell.)

FOR FURTHER READING

Cunningham, G. Watts, *Problems of Philosophy*, revised edition, Ch. V.

Dewey, J., *How We Think*, Ch. XVII.

Russell, Bertrand, *Mysticism and Logic*, Ch. X.

——— *Problems of Philosophy*, Ch. V.

Chapter XI

KNOWLEDGE: (b) MEMORY

THE IMPORTANCE of memory among the processes connected with knowledge should be obvious. Eyewitness cases in our police courts, and all kinds of reports by responsible persons rest heavily upon memory, and so does most of our practical, day-to-day living. Psychologists delight to demonstrate, with appropriate diagrams, how, in perception, memory fills in the gaps in direct sensation so that we are able to identify an indistinctly seen object and classify it under some well-remembered heading: "That is . . . Farmer Jones' scarecrow," "That must be . . . either Mr. Smith or Mr. Robinson," "That is probably the . . . new car Mrs. Brown was telling us about," "That will be . . . the postman," etc. Even in attempting to deal with sensory experience involving a minimum of interpretation, as when we try to confine ourselves to identifying an experience as "red," "blue," or "green," the comparison and choice involved imply reference to a remembered class of differentiated colors. Even in what are considered our simplest experiences, there is thus no getting away from memory.

"Memory" a name for a Multiplicity of Functions.—The name "memory" covers a multitude of logically distinct functions. "Wax to *receive*, and marble to *retain*," refers to two of these, but omits to notice the functions of *recognition* and *reproduction*, whose importance, however, is very great. Experimental psychologists in recent times have paid particular attention to the function of *retention*, and have made a sharp distinction between "pure retention" or "rote memory," and "intellectual" memory. In investigating pure retention, they have attempted to make use of material which excludes anything

noticeably "intellectual." That is to say, instead of learning meaningful material, they have set themselves to learn nonsense syllables, artificially constructed so as to have no obvious association with the syllables and words of the better-known languages. Nonsense syllables such as *xuw*, *kij*, *zem*, *vad*, etc., are arranged in series of ten or twelve. These series are learned, and the extent of their retention is tested after half an hour, or after one or more hours, days, weeks, years, etc. In this way, a "curve of memory" is established experimentally for a period of twenty-seven years or so.

But here we begin to come to the parting of the ways. Most psychologists bring to the interpretation of these and later experiments, a pronounced realist bias which colors every detail of their reports, in ways of which they appear to be unaware. This comes out with peculiar emphasis in the earlier work of a psychologist like E. L. Thorndike, with whose *Educational Psychology* most teachers are familiar. But it appears also in almost all textbooks of psychology used in elementary courses in our universities today. Thus R. S. Woodworth teaches us¹ that:

The factors of advantage in recall are the factors that determine the strength of linkage between two facts; and they are:

the *frequency* with which the linkage has occurred;

the *recency* with which it has occurred; and

the *intensity* with which it has occurred.

If these three factors work together in favor of the same response, then that response is sure to occur. Frequency, recency, and intensity summarize the *history* of associations, and measure their strength as dependent on their history. If you give the subject the stimulus word, "table," his response is "chair" or "dinner," etc. Words are so often linked together that . . . one recalls another automatically. What particular word shall be recalled depends on the frequency, recency and intensity of past linkage.

Realism.—As *realists* see it, then, retention is a function of these three factors of "intensity, recency, and frequency." The

¹ *Psychology*, revised edition, 1929, pp. 428-430, condensed. Cf. Warren and Carmichael, *Elements of Human Psychology*, revised edition, 1930, pp. 183-184.

first two of these affect especially immediate retention, known as "perseveration." "Music, when soft voices die, Vibrates in the memory," writes the poet. We all know how, after looking at the sun or an electric light, we find an "after-image" which persists or perseveres for some little time. So too, if we are reading a book, we can usually recall at least the last part we have just been reading. In carrying on a conversation, if we are a little inattentive and our *vis-à-vis* says suddenly, "I don't believe you heard a word I was saying," we can usually, by an effort, catch the last few words still "vibrating in the memory," and by a bold guess at the context soothe his wrath by repeating a good many of his exact words. We could hardly do this, however, if his words had been unclear, unemphasized, and not intense. We could also not do it except when the stimulus was very recent. The function of intensity and recency is thus obvious.

But we remember after a long time—ten years, twenty years, in fact, sometimes for our whole lives. A science student in the old days, acquiring his "compulsory Greek" in order to matriculate at one of the older universities, will have repeated, over and over again, the "paradigms of the verbs in *-mi*." Although in the course of a long career in the laboratory and lecture room, he may never have occasion to think of those paradigms, yet, if the factor of "frequency" was really operative in his youth, he will be able, when challenged, at the age of sixty or so, to rattle through the "present and imperfect paradigm" of *deiknumi* or *didomi* in the best fourth-form style. He may even—and this is the puzzling fact—be able to reproduce them better than he ever could in the old fourth-form days, with less hesitation and fewer errors. This kind of memory is said to be due to "association," and the "strength of association" is something which is said to "improve with age."

The *realist* explanation of this is extremely simple. It is believed that each nonsense syllable represents a unit, interchangeable, as far as meaning is concerned, with any other unit. By reading over a series of such units in sequence and then trying to repeat them, reading them a second time and trying to repeat

them, reading a third time, and so on, until we can definitely repeat the whole series, it is believed that the constant repetition forges links or bonds of external association between the first and the second, the second and the third, etc.; and that the strength of the association is in direct proportion to its "frequency," i.e., to the number of times it has been repeated, in the reading and in the active attempts at reproduction which follow each reading.

As all such factors as rhythm, accent, variation of interest, etc., are by suitable devices either eliminated or made uniform, it is believed that such association really deals with the factor of retention in isolation from other factors. The forging of external links or bonds of relation between the meaningless units, until, out of a number of links, each individually weak but all together proving strong, a chain of association is created which will, for a variety of reasons, survive the lapse of years, is regarded as the fundamental process in learning and in remembering, of all kinds.

Consider, for instance, a case of recall. We want to remember the name of a man we met only once. We remember the date. It was last year, in December, on the 30th. But the name does not come. We remember the time. It was in the evening. We remember the place. It was at Smith's flat. We remember the occasion. It was a farewell party in honor of Brown. But still the name does not come. With each one of these recollections, there is a faint stirring of associations, each of which connects, no doubt, although weakly, with the name we want. We try again. We remember what the man looked like, where he was standing, what he was saying, how we ourselves had introduced him, by name, to the guest of honor. We almost recall the name . . . but it still refuses to come. We pause for a moment, with each of the faint associations aroused, and attend to something else. The associations gradually shoot together, so that, out of a number of weak ones, a strong link of association is created . . . suddenly, yes, we have it! The name comes floating, of itself, into our minds. Of course! It was Bolzano.

The realist explanation of these factors in memory is thus

strictly mechanical. It is a matter of links or bonds—purely external—forged by mere repetition, and connecting otherwise indifferent things in such a way that, when we think of the first, the second cannot but come into mind also. Sometimes, when we think of the second, the first comes into mind. It is a poor association which does not, after a number of repetitions, work both ways. When we think of Mutt, we think of Jeff too; and when we think of Jeff, who does not find himself thinking of Mutt as well?

The application of these views to teaching in the schools is obvious. All memory work, when simplified as the realist simplifies it, becomes drill work: a matter of frequent repetition. If you want to learn anything, treat it like so many nonsense syllables. Read it through once and then try to repeat it. Read a second time and try to repeat, a third time. . . . You will find that, by this method, the average third-year student in a university will be able to learn any one of Shakespeare's sonnets in seven or eight repetitions, by reading the sonnet as a whole, and then trying to repeat, reading again, and so on. It is all purely mechanical, and has nothing to do with any grasp of meaning. If you constructed a sonnet which had *no* meaning, it could be remembered just as well. Such is the power of mechanical repetition, forging connecting links which individually are weak, but collectively are strong.

And further. Consider our memory of something which has meaning, as when we learn by heart a speech from *Macbeth*, or a movement from a classical sonata. It has been claimed, in opposition to the realist view, that "intellectual" memory follows other laws than mechanical or rote memory; that the curve of rote memory (or rather, rote learning) mounts rapidly at first, but with progressive slowness, until a "plateau" is reached, at a level which may be permanent; but that the curve of meaningful memory (or learning) mounts slowly at first, and then, when the meaning is fully grasped, mounts so rapidly that the "curve" becomes a vertical line. Many people have had the experience of trying to understand a situation blindly, until they somehow

grasp the key to its meaning. Then all the parts shoot into their places in relation to the whole. We grasp the whole situation and, being in possession of its "key," can reproduce each and every part without the slightest difficulty.

For example: a teacher of the history of philosophy, who, of course, understands his Kant, can give a lecture on almost any part of Kant's work without any notes and at a moment's notice. He remembers the whole "in principle," and can "work out" the details when called upon. He does not feel that it is a matter of mechanical links, all external to what they connect, but, on the contrary, that it is a matter of intimate, spiritual insight, and that the mechanical memory curve has nothing to do with the case.

But the realist-minded psychologist interprets *all* such cases by exactly the same mechanical laws as the simplest association of nonsense syllables. One of the most brilliant pieces of persistent reasoning is Thorndike's reduction of the curve of meaningful memory to the curve of rote memory, with the gradual conversion of the vertical line to a horizontal "plateau." The "system" of meaning, which the professor has made his own, and in which "Kant's Critical Philosophy" has a definite place, is shown to be itself the product of a great number of repetitions, mechanical enough in themselves, and producing, when taken together, that "familiarity" which is mistakenly treated as though it were something generically distinct from "familiarity," something called "insight." As Thorndike sees it, the memory for meaning is exactly as mechanical as the memory for meaningless syllables, and the apparent "insight" is identical with the familiarity which comes with frequent repetition.

Idealism.—An *idealist-minded* psychologist finds all this talk about "bonds" and "external connections stamped in by mechanical repetition," even when associated with "intensity" and "recency," almost incredible. To treat the things remembered as if they were so many loose bricks, and the process of association as if it were a purely external application of mortar, in a purely physical, non-mental process, is to him simply amazing. The way

in which the realist deliberately excludes the mind from his account of memory passes the idealist's understanding.

To the idealist, it is obvious that, when we recall the name "Bolzano," it is not a matter of groping around until a number of weak links somehow come together and constitute a strong link. As the idealist sees it, we actively recall the original experience and live through it in all its unity, as well as in all its variety. We select intelligently the time, the place, the occasion, the sensory aspects of the situation, the intellectual aspects of the situation. As a result of our picking out from the past the whole experience as a unity and working our way in from the situation as a whole to its parts or details, we of course remember the name as one of the parts of the original experience. As a part, an organic part of the original experience, what "binds" it to the other parts is no mindless mechanism, but the living unity of the experience as a spiritual whole. It is not "linked" mechanically, as one part of a physical chain is attached to another part of the same chain. The different parts are rather permeated by the spiritual, living unity of the mind which experienced them as parts and is reexperiencing them now. The parts do not constitute the whole, building it up brick by brick, as the realist supposes. On the contrary, it is the life of the mind, taking up into its own living unity all the details of the situation, which makes them parts, living parts of a living whole.

And further. In dealing with meaningful material, the phenomenon of remembering and understanding something learned many years ago better than we remembered and understood at the time, is a little puzzling to the realist. He explains it by supposing that, when environmental disturbances subside, the link of connection forged by intensity, recency, and frequency acquires a definite "set," which grows a little stronger in proportion as its place in the central nervous system is more removed from the competition of entering stimulations. But consider a concrete case. A boy in school at the age of seventeen studies Demosthenes' *First Philippic*, and finds it hard to understand and hard to remember. The Greek style is stiff and elaborate, and the logic

used by the great orator is even more stiff and elaborate. Both are like nothing in the boy's experience, and although he has a clear and vigorous teacher, he neither grasps nor remembers well the meaning and content of the oration. Time passes. At the age of forty-five or so, that one-time boy has a son going through college and reading that same oration. The son finds it hard, and comes to his father for what assistance he can get. To his own astonishment, the man of forty-five, who has never, in the interval between seventeen and forty-five, given his old school task a single thought, finds that he both understands and remembers that speech of Demosthenes with a clearness and distinctness which rival that of his one-time teacher himself.

How does the idealist explain this? Hardly by "intensity," certainly not by "recency," and quite certainly not by "frequency." He explains it by a kind of merger of personality. He merges the personality he is now with the personality he was then. In reliving the former experience, he brings to bear his present powers, his broader knowledge, his keen grasp of logic, his deeper insight. He does not so much throw himself back into the past, as bring his past experience up to date, bring it to the point reached by his present personality. His present life, with its broader and deeper powers of unifying and understanding, assimilates rather easily the past life; and the past life comes, not halfway to meet him, but—such is the power of mind—the whole way, and is fully taken up into the living intelligence.

Is not this, it may be asked, understanding rather than remembering? The answer, from the idealist standpoint, is, No. We cannot get away from memory when we seek to understand; and we cannot get away from understanding when we seek to remember. The life of the mind is identical in the function of understanding and in the function of remembering. The only distinction is as to whether there is an explicit reference to the past. If we live through, or relive through, an experience and concentrate upon its meaning, we call that "understanding"; if, in reliving through the same experience, we refer it to the past, then, in virtue of that reference to past time, we call it "remembering."

So much for meaningful material. Now let us look into this matter of nonsense syllables, or so-called "rote" memory. The realist regards retention, a blind retention of meaningless material, as fundamental, and proceeds to explain the meaningful in terms of the meaningless. All remembering is, for him, equally mechanical. The idealist entirely reverses this procedure. For him, remembering is a meaningful activity of mind, and its laws are spiritual. This is true, whether we are remembering the content of a speech of Demosthenes or a series of so-called nonsense syllables. The idealist thus explains the apparently meaningless in terms of the meaningful and, in the end, denies that what we, by our powers of mind, understand and remember, can ever be meaningless.

Let us take a look at these so-called "nonsense" syllables. In the first place, they are treated as "units" and are grouped in "series." What treats them as units and groups them in unified series in ordered sequence is, of course, the mind. The series are read and actively repeated as wholes. This also is the work of the mind. The mind is, clearly, bestowing upon them mathematical and sequential system; and what it "understands" and "remembers" is precisely this mathematical and sequential system² which it has itself bestowed.

And there is something further. In intention, these syllables are all equally meaningless, just points in a series. But in actual practice, each one is further taken up into some meaningful system. *Xuw*, *kij*, and the rest are not, of course, found in our dictionaries and encyclopedias. But as soon as we look at them, we find ourselves beginning to try out this system and that, until we find one that fits. We find ourselves placing *xuw* tentatively under the heading, "language of the Aztecs," or perhaps under the heading, "possible name for a God, like *tiw* from

² "By a system is here understood a complex situation such that the parts or elements of which it is composed are so connected with each other that inference from one to the other is possible. Meaning always falls within a system as thus understood, and is not possible outside of such a system" (G. Watts Cunningham, *Problems of Philosophy*, revised edition, 1935, p. 70, slightly condensed). Cf. B. Bosanquet, *Implication and Linear Inference*, 1926, pp. 1-20.

whom the name 'Tuesday' comes." *Kij* we find ourselves adopting into our nautical system as a kind of abbreviation of "kedge anchor," or possibly into our ever-ravenous food system as a form of "kedgerec."

In taking up such syllables into the active systems of the mind, the idealist points out that we are doing precisely what we do when, from our present-day standpoint, we assimilate our one-time study of Demosthenes. This "apperception," as it is called, is understood by the idealist as an active process of intelligent selection, following not mechanical, but spiritual, laws; and its content, the material taken up into and participating in the life of the mind, is never meaningless, even in the case of the nonsense syllables, but is always meaningful. As so taken up, it is understood. As referred to the past, it is "remembered."

In relation to the work of the schools, then, the idealist's advice is different from the realist's. If you want a pupil to remember something, stimulate him so that he will bring to bear the full powers of his self. Teach him to analyze, to pick out, emphasize, and unify the elements in a situation which are logically important, which hang together in a unifiable system of meaning; stimulate him to relate them to his previously formed systems of meaning so that he will readily "apperceive" and absorb them into the life of the mind. Do that, and he will understand them as far as his experience enables him to understand. Since understanding and memory are, as processes, identical, what he has understood will have become part of his mental life, and he will retain it as a living part of that life.

If you wish the pupil to remember, not the logical essence which he has grasped and assimilated, but the actual words in which it is expressed, you will, of course, have to do something further. The idealist advises, not mechanical drill, but insight into the principle which made those words selected and gave them that order. That is to say, the idealist advises that the pupil should be put at the creative point of view, and should come to see how the given situation would be expressed. If this is done, while the pupil may not be absolutely letter-perfect in

a mechanical sense, he will be, from the idealist standpoint, something better. He will be idea-perfect, and his creative intelligence will have developed and educated itself by assimilating, in a creative way, the product of intelligent creation. To paraphrase, to translate, is thus, from the idealist point of view, a better method of studying a poem than to repeat it with mechanical word perfection.

Pragmatism.—The *pragmatist* has no use for what common sense, with its realist outlook, calls “memory.” Mechanically repetitive drill seems to him a terrible thing, enslaving and deadening the potentialities of the growing child. Any kind of dwelling in the past seems to him a product of the “academic” point of view, which he invariably deplors. The “bonds” and “links” in which realist psychology rejoices are, to the pragmatist, veritable fetters, checking and stopping all vital growth, precisely analogous to the ties with which the Lilliputians succeeded in binding Gulliver. This whole attitude seems to the pragmatist an example of the “schoolmaster’s fallacy,” the false notion that everything worth thinking, saying, writing, and doing has already been said and done by the great men of the past. All that remains for us *epigoni* is to read, mark, learn, and appreciate what others have done: to learn by heart their grammar, with its stereotyped rules and exceptions; to count their commas and unstopped lines; to live our lives, if possible, in an atmosphere of apt citations; and never, never to speak and act for ourselves. That is why Dewey teaches³ that:

Imaginative recovery of the bygone is indispensable to successful invasion of the future, but its status is that of an instrument. . . . To isolate the past, dwelling upon it for its own sake and giving it the eulogistic name of knowledge, is to substitute the reminiscence of old age for effective intelligence. . . . At Fairhope,⁴ the children do the work, and the teacher is there to help them to know, not to have them give back what they have memorized. Tests are often conducted with books open, since they are not to show the teacher what the child can

³ John Dewey, in *Creative Intelligence*, p. 24.

⁴ John and Evelyn Dewey, *Schools of Tomorrow*, p. 28; cf. pp. 296–298, 308.

remember, but rather to discover his progress in ability to use books. Lessons are not assigned. . . .

The whole interest of the pragmatist is in the present and the immediate future, in planning and realizing our plans, in solving new problems with new techniques. "Memory," as understood by realists and sentimental poets, is, from the pragmatist standpoint, an unwanted child, better never brought into the world. It is, in fact, an artificial creation, kept in being only by repeated doses of "intensity" and "recency," and easily lapsing into a state of coma from which it is difficult to arouse it.

Here a question will be raised. Does not the pragmatist know, it will be asked, that there are such things as "mental images," and that our authoritative textbooks usually called them "*memory images*"? Do not our psychologists teach that the function of the image is to reproduce the original experience in all its exact detail, in accordance with what used to be called the "Law of Complete Redintegration"? Is not this the factual basis of what is called "memory"?

The answer of the pragmatist is, perhaps, a little disconcerting. He points out that psychologists *with a realist bias* do indeed teach this, but that the "facts" revealed by experimentation do not agree with their teaching. Diagrams of novel shape and coloring are "memorized" in the laboratory. After a week or so, the memorizers are tested. It is found that in approximately one hundred cases out of a hundred, the diagrams then reproduced are *not* the same as the diagrams memorized. There is no such thing as "complete redintegration." The realist-minded psychologist fixes the blame for this, not upon his theory. Oh, no. He still expects complete redintegration. He blames the interference of other factors, which have produced "distortions," "omissions," "additions," and "transpositions" of elements in the original diagrams. Thus he accounts for the fact that he never finds complete redintegration, and yet he manages to keep his realist bias.

As the pragmatist sees it, it is pure prejudice which makes the realist-minded psychologist explain the quite simple facts in

this perverse way. The fact, as the pragmatist likes to regard it, is that my image, here and now, is a function of my living and planning. As my living and planning change, of course my image changes. It is only by strait-jacket methods, by ruthless drill, that it can be made to stay put, and then only for a limited time.

The real function of the image is to assist in creating the future, in making and realizing plans. The image of a good meal, of a good drink, of the beloved, of the book one is writing, *may*, if the realist insists upon it, be turned so that it faces backward, like Lot's wife. But, as a rule, it is turned forward, and is influential as a factor in realizing the future. As the pragmatist sees it, its function is found, not in contemplation but in action, not in some kind of static awareness called "knowing" but in doing.

As to the idealist view, the pragmatist approves of the insistence upon the person as exercising genuine initiative. But the action in which the pragmatist believes is always a function of *all* the factors of the concrete situation. It is entirely empirical, and should not be regarded as in some sense the product of a transcendental or noumenal self which is somehow superior to the laws of our biological and social environment. We proceed toward the solution of our empirical problems by the empirical method of trial and error. We try out, in concrete action, the pathways suggested to us by our "images," and check the tendency to error by the cues to improved action suggested, partly by sensations, and partly by further images. The function of the image is thus empirical and is oriented, not toward the past, toward "memory" and "contemplation" and "knowledge," but toward the future, toward action and the realization of our plans. As Dewey says,⁵ "We live forward . . . we live in a world where changes are going on whose issue means our weal or woe . . . every act of ours modifies these changes and hence is fraught with promise, or charged with hostile energies . . . experience is a future implicated in a present. . . . Anticipation is therefore more primary than recollection; projection than summoning of

⁵In *Creative Intelligence*, pp. 12-13, somewhat condensed.

the past; the prospective than the retrospective . . . experience is bound to be prospective in import."

In relation to the work of the schools, then, the pragmatist advises to train the pupils in doing, in applying technique to the solution of problems. The imagery which others would have us contemplate and repeat over and over, until it becomes a sort of fixed idea, is always, by the pragmatist, kept in a state of solution, in the service of the pupil's plans, so that he continues to grow, and grow with a growth which is his own.

The pragmatist agrees with the idealist that it is better to put the pupil at the creative point of view; but he does not suppose, as the idealist does, that the pupil will then recreate the old idea in something like the old words. He believes rather that the pupil will create a new, modern, original, up-to-date idea, and will express it with techniques adapted to the present day. In the pragmatist school, "learning by heart" will vanish for ever, and "memorizing" will never even be mentioned. Its place will be taken by "doing," by that technical planning and acting which is directed, never toward the past, but always toward the future.

TOPICS FOR DISCUSSION

1. Discuss the way in which images are never remembered as a mere reproduction of the past, but are always "distorted," with "omissions" and "additions." Discuss the way in which an image is a function of the forward-looking present, selecting what will be useful for the realization of plans.
2. How would you account, on the basis of any of the three views, for our memory of unimportant details? How is this memory of such details used in objective examination?
3. If it is I myself who associate the different items in a remembered experience, how is it that "frequency" helps me to remember? Is not "frequency" always a "mechanical" factor—and "intensity" too?
4. On the "merger-of-personality" theory, should it not be true that a man of forty should be able to understand and remember super-excellently what he had thought, studied, and done in his teens?

Yet do we really remember, in this way, the work and thoughts of our high school years?

5. What is meant by the "systems" of the mind? Are they "fixations," mechanical complexes? If the idealist "mind" is really concerned, should they not be matters of an insight which sees through and beyond "system"? Consider in relation to high school or college studies.
6. "As far as our nervous systems are concerned, they are faithful registers. We remember everything we have ever experienced. But forgetting is an active process, a selective censor who blots out this or that record." How far is this true, from (a) the realist, (b) the idealist, and (c) the pragmatist standpoint? Consider with reference not merely to personal experience of an affective sort (Freud), but to preparing pupils for examination in high school subjects.
7. Illustrate the "schoolmaster's fallacy." Is it more prevalent when the schoolmaster is of the realist, idealist, or pragmatist type?
8. How far is the pragmatist's attack upon memory work in the schools, as making the pupil "academic" and backward-looking when he should be forward-looking, justified?
9. "Memory is the only thing that grief can call its own." How would this dictum be criticized (a) by a realist, (b) by an idealist, and (c) by a pragmatist, in relation to some grief of adolescence, and in reference to high school work?

EXERCISE

Try to identify as distinctively realist, idealist, or pragmatist, the following passages:

- a. Any subject taught and learned as an *isolated* body of knowledge is soon forgotten. Materials that are learned for a specific occasion and are associated by means of thought only with that event can be readily remembered when that situation arises, but are soon forgotten thereafter. Many college students so master a subject that they are able to pass a satisfactory examination and yet within a month forget the major portion of what they have learned. (H. A. Carr.)
- b. The ability to perform any act is due to the accumulated effects of the various trials involved in its mastery. These accumulated effects also persist and may influence the ability to acquire some other act. This process of utilizing the effects of previous experi-

ences in acquiring some new act is known as transfer of training. Every new act is learned in terms of previous acquisitions. (H. A. Carr.)

- c. What is perceived is part of nature or matter, and since in actual perception the rest comes from memory and is superadded to matter, it follows that memory must be, in principle, a power absolutely independent of matter. (Bergson.)
- d. Memory is plainly a construction from the ground of the present. It is throughout inferential, and is certainly fallible. (Bradley.)
- e. Memory normally reproduces the order of events as formerly experienced; this is because it reproduces the adjustments upon which primary memory depends. The type of adjustment that makes primary memory possible is the adjustment as to A-passing-into-B. Reproductive memory will give us again this same datum A-passing-into-B. The recall of the sensory elements may be quite fragmentary. But if the earlier reaction is repeated, we recall that object or event. We may merely revive, mentally, the event, by repeating this reaction. (Drake.)
- f. Memory is a direct use of what has been learned, while thinking is an indirect use of what has been learned. Remembering is performing a ready-made act, while thinking is doing something partially new and different. Remembering proves previous learning; and it proves something more, since what was learned must have been *retained* during the interval between learning and remembering. We have then four sub-topics under the general head of memory: Learning, Retention, Recall, Recognition. (Woodworth.)
- g. Lists of nonsense syllables are usually learned by grouping, by observing similarities and contrasts, and by reading meaning into the single syllables or their combinations. Often the subject accents the first syllable of each pair, and finds that the rhythm thus introduced aids in memorizing. Many are the devices hit upon. All reveal the learner as actively searching for combinations that shall be familiar, meaningful, or somehow characteristic, and thus useful in tying the items together. (Woodworth.)
- h. In memorizing *connected passages* of prose or verse, the efficient procedure consists in noting the general sense of the passage, the place of each part in the general scheme, the structure of the sentences and the author's choice of particular words. Memorizing

is here greatly assisted by the familiar sequences of words and by the connected meaning of the whole. (Woodworth.)

FOR FURTHER READING

Alexander, S., *Space, Time and Deity*, Vol. I, pp. 113-133.

Broad, C. D., *The Mind and its Place in Nature*, Ch. V.

Dewey, J., *How We Think*, Ch. VIII.

Holt, E. B., *The Concept of Consciousness*, Ch. XII.

Warren, H. C., and Carmichael, L., *Elements of Human Psychology*, Ch. IX.

Chapter XII

KNOWLEDGE: (c) LEARNING

A DISTINGUISHED scientist was giving the prizes at commencement. He noticed that the same girl kept coming up, again and again, for prizes: Form Prize, Character Prize, English Prize, General Science Prize, Music Prize. When she came up finally, to receive the last prize on the table, he stopped her for a moment. "It must be wonderful," he said, "to know all you know." "Yes," she replied, looking up to his great height, "it *is*." The crude Doctor Faust, wondering at the immense range of his own learning, could hardly have put it better. When we compare the sureness and poise of a child of twelve with the hesitancy and uncertainty of a child of six, or the mastery over his world obviously felt by the graduate of school or college with the feeling of the entering freshman that his place is in the lost-and-found department, we all wonder at the difference a little learning makes. It seems almost magical, out of proportion to the relatively small time spent upon it. We naturally ask ourselves how it is done.

Recent Experiments.—Studies of the psychology of learning have been very numerous. The special investigations have confined themselves, of course, to material of a simple kind which seems to lend itself to exact measurement: to nonsense syllables, to improvement of speed in typewriting, to improvement in speed in playing scales and exercises upon the piano, to improvement of speed in simple addition or in crossing out letters or numbers, to improvement in the acquisition of this or that skilled movement, etc. The "curve of learning" has been established for a great variety of organisms, from the unicellular *Vorticella* to the sea anemone, to various spiders, turtles, cats, dogs, monkeys, and, of course, to children, women, and men. At first it was supposed

that the "curve" would vary with the kind of material learned and with the methods used to test the degree of learning. But in spite of experimental differences, on the whole the results show an astonishing uniformity; and these results have been interpreted and summed up for teachers in a number of well-known books all entitled "Psychology of Learning."

As we read these books, we find that, while not all of them are as uncompromising in their language as the authoritative textbooks written by Thorndike,¹ they nearly all, in the end, share his pronounced realist bias, and interpret all kinds of skill in terms of speed and smoothness of physical movement, and, indeed, all kinds of learning in this selfsame way. Let us proceed to examine the realist interpretation of learning.

Realism.—The *typical realist* regards all learning, of whatever kind, as the stamping in, upon the plastic nervous system, of links or bonds of connection. Learning is, in fact, identified with association, and association is understood in a strictly mechanical sense, as the physical linking together of this and that by "intensity, recency, and frequency," and especially by "frequency." Learning, like falling in love, is a matter of propinquity, frequent or repeated propinquity, and can be brought about deliberately by determining and controlling the repetitions.

If you place a hungry cat or dog in a cage, with food outside, and if the cage is so constructed that placing a paw in a loop and pulling, or pushing down a bar, will open the door and let the animal out, it does not take long before the animal has escaped. Its method is the method of trial and error. It leaps around the cage in great agitation, striking here and there at random. By a happy accident,² its paw catches in the loop, or knocks against the bar, and the door opens.

¹ It is only fair to state that Thorndike's later work is progressively less biased.

² Early descriptions of such experiments agree in emphasizing the "random" nature of the movements, and the "chance" element in "hitting upon" the eventually successful movement. This is pointed out in the case of human beings also (e.g., by W. F. Book, *The Psychology of Skill*, 1908, pp. 92, 95, quoted by Thorndike, *The Psychology of Learning*, 1921, pp. 16-17). It is made further plausible by cases in which the experimenter lets the animal out of the cage only when the animal performs a movement (such as scratching itself)

The animal is out, but it has not yet "learned" how to find its way out. If you replace it next day, it will make random movements much as before until, again by chance as it seems,² its paw catches in the loop or knocks against the bar. The experiment is repeated until the animal goes straight to the loop or bar and opens the door without hesitation. It is then said to have "learned" to solve its problem. The learning is obviously mechanical, obviously a matter of trial and error, until the movements associated with final satisfaction have been separated from the other random² movements, and have been stamped into the animal's nervous system by frequent repetition. As Thorndike says:³

These cases . . . show the laws of readiness, exercise, and effect, uncomplicated by any pseudo-aid from imitation, ideo-motor action, or superior faculties of inference. . . . Of the bonds which the animal's behavior makes between a situation and responses, those grow stronger which are accompanied by satisfying states of affairs. . . . Exercise strengthens and disuse weakens bonds. Such is the sum and substance of the bulk of animal learning. . . . These simple, semi-mechanical phenomena . . . which animal learning discloses, are the fundamentals of human learning also. . . . No matter how subtle, complicated and advanced a form of learning one has to explain, these simple facts . . . will, as a matter of fact, still be the main, and perhaps the only, facts needed to explain it.

Watch a young human gymnast learning the "shoulder-stand"

which the experimenter has predetermined, in his own mind, as a suitable cue (Thorndike, *op. cit.*, p. 10). Later interpretations emphasize the "set" on the part of the animal (its dominant endeavor to do something that will let it out). H. A. Carr writes: "Writers sometimes overemphasize the random and aimless character of the animal's behavior. Organisms never react to a problem in a wholly random and aimless fashion, for their mode of attack is always relevant and appropriate to that situation. . . . An aimless type of reaction will never achieve success. Organisms exhibit an unsystematic mode of attack only in the sense that the exact order of procedure can never be predicted. Neither is the discovery of the solution wholly a matter of chance." (*Psychology: A Study of Mental Activity*, 1925, pp. 89-92, condensed).

² E. L. Thorndike, *The Psychology of Learning* (*Educational Psychology*, Vol. II), 1921, pp. 11-12, 16, condensed.

on the parallel bars, or the "angel" circles around the horizontal bar. He, too, plainly proceeds by the method of trial and error, making at first a large number of spasmodic and random movements which do not help at all, and only gradually, after frequent repetitions, learning to make just those movements which bring about the performance desired. In the end, his nervous system responds smoothly and efficiently to the demands made upon it by the problem.

Watch a human being who has, by some accident, stayed behind in the upstairs laboratory until the caretaker has locked the doors below. He comes downstairs and finds the inner gate locked. One attempt to turn the handle and open the gate convinces him of this. He turns to the other gate which leads to the rest of the building, and finds that locked too. Then, like any other trapped animal, he begins to get excited. A university student, in such a position, behaves almost exactly like the cat or dog. He rushes from one gate to the other and back again, pulling, pushing, kicking, knocking, and using his voice in the human equivalent of the dog's bark and the cat's miaow. Eventually, by accident, in pushing at a classroom door which happens to have been left unlocked, he finds himself in a ground-floor room with windows from which he can make his escape.

In the very rare case of a student who would sit down and "think things out" the procedure is still by the method of trial and error. The student dashes about among the imagined possibilities, trying this course of action or that in his imagination, until he hits upon some method of escape which seems to satisfy all the conditions.⁴ He then tries this out in practice.

⁴ The interpretation of such experiments is still viewed with caution. Thus Bertrand Russell writes of them as follows: "All the animals that have been carefully observed have behaved so as to confirm the philosophy in which the observer believed before his observation began. Nay, more, they have all displayed the national characteristics of the observer. Animals studied by Americans rush about frantically, with an incredible display of hustle and pep, and at last achieve the desired result by chance. Animals observed by Germans sit still and think, and at last evolve the solution out of their inner consciousness. . . . No one investigator is to be trusted to give a survey of the whole field" (*Philosophy*, 1927, pp. 29-30).

In all cases of learning to solve a novel problem, then, the method is fundamentally the same: the method of trial and error. That this is our own method, we can easily convince ourselves by watching the way in which we ourselves meet new problems. If we remain calm and proceed at once to a suitable response, this is a sign that repetition has already stamped upon our nervous system an appropriate reaction-tendency—in a word, that the situation is not entirely novel. Like the animal, we try out our complete box of tricks, reacting at random with every mechanism we possess, until something clicks and the problem is solved. The chief difference is that the animal has a much smaller box of tricks. Where *Paramecium* or *Vorticella* has a choice of only three reactions, *our* choice is practically unlimited. If our immediate powers are inadequate, we can always ring up the chief of police, or write to *The Times*, or organize a company or a political party. There is much virtue in calling a committee and instructing our executive.

As the realist sees it, *all* learning, without exception, is of this simple type: physical movements representing trial and error, until some random reaction proves successful; then the stamping in of the successful reaction by the force of intensity, recency, and frequency, resulting in smooth and efficient movements which satisfy because they solve the problem. Learning is progress toward efficient physical interaction with the physical environment. The learning process is itself physical from start to finish, and is registered in direct changes in the organism which learns. In the case of human organisms, such changes are registered, for the most part, in the central nervous system.

Here, however, a question may be raised. When a child learns the arithmetical "tables" at school, or the list of the Kings of Israel or states of the American Union, of course repetition stamps in the details. But is not the result something more than a mechanical smoothness and directness of response? Is not a child different from a merely physical gramophone? Has it not an appreciation of the *meaning* of its (doubtless physical) response? Psychology teaches⁵ that:

⁵ R. S. Woodworth, *Psychology*, revised edition, 1920, p. 445, condensed.

In order to think a thought, it is not sufficient to say the words. A boy learns his little speech thoroughly, goes on the platform and rattles it off without the slightest sense of what he is saying. The same kind of thing is known to happen in church. It happens in reading a textbook; you may read a paragraph through aloud without getting an inkling of the author's thought, your own thoughts being far away. If the exploratory process of reasoning is preliminary to seeing something new, we can conclude that speech plays its part in the preliminary stage. It helps greatly in assembling the data, but grasping the new knowledge present in the data is seeing, not talking.

Do not we all distinguish between talking and understanding, between an efficiency which is merely mechanical, and an efficiency which indicates a genuine grasp of meaning, a learning which implies *awareness*, and is more than physical reaction, however smooth?

To this question, present-day realism returns a hesitating answer. The question involves the very difficult problem as to the existence of "consciousness" as something not itself physical and yet somehow related to the physical world. Some realists, like behaviorist psychologists, challenge the existence of any such thing. They regard it as a tribal myth for which there is no evidence which a physical scientist can accept. Most realists regard "mind" as the interaction of physical brain (and nervous system) with the physical environment, and locate it "out there" where the interaction—a purely physical interaction, of course—is taking place. They can see no adequate reason for believing in the (physical) reality of an alleged consciousness, and, in the end, deny its existence outright. As Montague puts it,⁶ "In a world of pure fact, no place can be found for 'causality,' and no place can be found for 'consciousness.' The system is purely descriptive and purely objective and contains no trace of the productive or the subjective functions." Believing, however, that both causality and consciousness are real *in some sense*, he defines consciousness as "the cause-effect potentiality functionally resident in events," and shows that it exhibits "the three directions of a potentiality" in being (1) retrospective (effect implying cause), (2)

⁶ W. P. Montague, in *The New Realism*, 1912, pp. 263-264, condensed.

prospective (cause implying effect), and (3) perspective (in reciprocal interaction with contemporary events in space).⁷ Holt's definition of "consciousness or mind" as "a cross-section of the universe, selected by the nervous system,"⁸ i.e., specifically responded to by the nervous system, seems to omit precisely what common sense regards as "consciousness," namely, reflective awareness. Neural responses are "sub-self-conscious," "not amenable to introspective judgment."

A second group, called "critical" realists, identify "mind," not with *all* the factors which enter into such physical interaction, but with the brain alone. For them also, any sort of "consciousness" is, physically speaking, a myth. As Durant Drake says:⁹

A mind is simply a brain regarded from the inside. . . . It is an organ (a bodily organ) for adjusting the body to the world. . . . Our cerebral states evoke adjustments as to events external to themselves . . . cerebral events and the atomic and electronic forces outside the body . . . make up the existent world, while the data of our experience, so far as they are something different from these, belong merely to the realm of appearance. . . . Consciousness does not exist. It is not something you could find in the brain or outside it.

A third group, who call themselves "naïve" or "innocent" realists, believe in a consciousness, in the sense of "awareness" or "contemplation" of some of the physical processes of interaction. It is found only when the physical conditions are complex enough to include, among them, a well-developed brain and nervous system. But such realists treat "consciousness" as something *sui generis*. It is neither physically efficient nor physically observable. It does nothing whatever that you can test by physical instruments in a physical laboratory. Its existence is thus not physical, and is not susceptible to physical proof or physical disproof. It consists in an awareness, an apprehension. But the con-

⁷ *Ibid.*, pp. 279-285, condensed.

⁸ E. B. Holt, in *The New Realism*, pp. 353-355, condensed. For the absence of reflective awareness, cf. Holt, *The Concept of Consciousness*, 1914, pp. 206-207, 213-217.

⁹ Durant Drake, *Mind and its Place in Nature*, 1925, pp. 43, 68, 93, 180, 184, 186, condensed.

tents apprehended are always physical contents, interacting in accordance with the usual physical laws. Consciousness is thus an awareness of objective, physical fact. With this fact it does not, in any physical sense, interact. It is "together with" it, in a sort of "togetherness" which is, *sui generis*, a "compresence" for which there is no physical analogy. We accept such togetherness and such consciousness with natural piety as unique facts, as a kind of fact which can never be explained in terms intelligible to physical science. According to Alexander:¹⁰

There is nothing in the mind but acts. Every mental act is a conation and nothing else. . . . Primarily conation is practical, and issues in movements which tend to alter, or at least affect our relation to, the object. But the issue of the conation may be suspended, as in merely watching the object. The conation issues in movements directed to sustaining our attention, maintaining the conation as a mental process while inhibiting its normal reaction upon the object. Sometimes the outward movement is switched off into speech or other gestures. Cognition is thus isolated from practical conation by diversion or suspension of the practical movements which alter the world. We do not do because we know; we know because we do, and we end by knowing without doing. Yet our mental action remains to the end a doing. Cognition is then nothing but conation considered in its objective reference.

That is to say, our mental action, *in so far as it is cognitive or contemplative awareness*, has, by suspension or diversion, isolated itself from the process of physical interaction. It is a "compresence" in which one of the partners has ceased to be a physically interactive object, and has become merely "contemplative," with the subjective experience labeled "enjoyment."

Only realists of this third group are in a position to admit a distinction between the learned response which is purely a matter of physical smooth running, and the learned response which is also accompanied by some awareness of its meaning. But even realists of this third group insist that apprehension of objective fact, or awareness of its meaning, makes no difference whatever

¹⁰ *Space, Time, and Destiny*, 1920, Vol. II, pp. 118-121, condensed.

to the physically real thing. The physically real thing, which can be demonstrated and tested in a physical laboratory, is the improved smoothness of physical response to physical stimulation.

Realists of the other two groups regard this improvement in physical response precisely as behaviorists do. For them, it is the *only* real thing about learning. They deny *in toto*, not merely the physical efficacy and the physical existence, but also the alleged *sui generis* existence, of any kind of "awareness" or "apprehension." "Consciousness" is something for which there is no physical evidence, and in such cases the physical realist agrees with the dictum of Spinoza: *De non apparentibus et non existentibus, eadem est ratio*. A physical realist who also wants to believe in an unobservable¹¹ "consciousness" is in the same position as the legendary emperor of China who wanted to believe in his unobservable "new clothes."

Idealism.—Idealists feel that in this account of learning something has been, no doubt unintentionally, omitted. It is not when mere interaction occurs that learning takes place, even on the realist hypothesis. One of the parties to the interaction—the one with the brain—has to be *active*. In learning by heart, we first read, and then *try actively* to repeat. There is some activity even in the reading. The concentration, selection, emphasis, and will-to-learn, on the part of the person with the brain, clearly enter into the situation; and the idealist feels that these active qualities of the self do not receive adequate recognition in the realist account.

As the idealist sees it, learning is a kind of growth or development of the self as a whole; and the process of learning is always a process of self-initiated and self-directed activity. It is emphatically a subjective process. And there is something further: the content which the self takes up into its life in the learning process is not taken in as an objective content, a foreign body which retains its own citizenship, so to speak, and remains unassimilable, the same when it is a part of what we have learned as when it was "in itself." The subject matter learned is taken into our life

¹¹ Cf. *Ibid.*, p. 156 *et al.*

via qualities which are subjective rather than objective. The characteristic law of mind is its power of unifying, of arranging in ordered systems; and the "objects" which we learn to know are all taken up into the mind in so far as they are unified and arranged in ordered systems. They are learned, in a word, in so far as they are counterparts of the self, in so far as they exhibit qualities which are subjective, mental, and personal. Learning takes place as a kind of merging of personalities.

Consider the learning of a poem. Objectively regarded, "in itself," the poem as printed in the book is so many black marks on so much white paper. Its spatial extent is so and so much. Its physical weight is so many grams. As Russell does not hesitate to put it,¹² "The *thoughts* of Shakespeare . . . are of no importance to us; their whole social efficacy depended upon certain black marks which he made on white paper. Now there seems no reason to suppose that physics does not apply to the making of these marks, which was a movement of matter just as truly as the revolution of the earth in its orbit. . . . No one can doubt that the causes of our emotions when we read Shakespeare . . . are purely physical. We cannot escape from the universality of physical causation." As the idealist sees it, physical interaction with the physical properties of the poem will never result in learning anything but the external, physical properties of the poem, if indeed it goes as far as that.

The pupil really learns the poem itself by treating it as evidence of a self, something like the pupil's own self. What he takes up into his own life in the learning process is not something alien to that life, such as "black marks on white paper," but something living, the poet's self expressing itself in that poem. With that living self he merges his own living self, and spiritual growth is the result. He even speaks of the poem as the poem *itself*, showing that he habitually thinks of the object as a kind of self. He does not feel that he has succeeded in learning the poem unless he has penetrated beneath the black marks on the white paper,

¹² *The Analysis of Matter*, 1927, pp. 392-393, condensed.

penetrated beneath the grammar and idioms, beneath the rhythmic and melodic medium employed by the poet, to the poet's living meaning, which has creatively selected those rhythmic and melodic forms, that grammar and those idioms, in order to address itself to other living selves in an intercourse in which all parties share the experience, the creative experience of a living, unifying and organizing mind.

From the idealist standpoint, then, learning is something more than a process of physical interaction resulting in physical change. It is a process of spiritual intercourse resulting in spiritual growth. It is insight into meaning, rather than mechanical word perfection, at which the idealist aims. If, however, he is required to "learn by heart" the actual words used by the poet, he learns those words, the external expression of the poet's meaning, not, however, as so many repeated nonsense syllables linked in a long chain of predecessors and successors, but as phrases instinct with life, as expressing the living message of the poet and bearing the living impress of his meaning.

And here the idealist-minded psychologist takes time to point out that there is no virtue whatever in mere "frequency" and "recency." Of themselves, such factors play little or no part in "stamping in" this or that experience. Ask any citizen who walks down Main Street every day of his business life, in what precise order the different shops are arranged. Physically, he has passed shop A, shop B, shop C, . . . and the rest with great frequency, and no doubt quite recently. But only a man who *has set himself actively*¹³ to arrange those shops in sequence will be able to answer the question satisfactorily. The rest of us can point to this or that shop which, for some reason personal to ourselves, stands out as the place where we buy so-and-so or meet such-and-such friends, or which we find attractive for this or that reason. But the remaining shops, which we have not had occasion to consider in a personal way, we cannot do much with, in answer to

¹³ Cf. H. A. Carr, *Psychology*, 1925, p. 231: "A subject may assume a relatively active or passive attitude while memorizing. Materials are learned much more readily when an active attitude is adopted."

the question, however marked the "frequency" and "recency" of our passing them.

"Intensity" also, considered as a merely physical factor in the learning process, seems to have been overrated. In a world in which our ears are assailed continually by this or that appeal as intense as the powers at the disposition of advertising agents can make it, we develop sales resistance. Part of the process of concentrating on one thing in which we interest ourselves, consists in excluding from the focus of interest everything else, however intense.

For example: the music student, playing Chopin or Beethoven, does not hear the dinner gong although, objectively considered, it is far more intense as a stimulus. The studious Younger Pliny, although a volcano is in eruption and men and women are panic-stricken, goes on quietly with his notes and meditations. Many of the experiences we share in the learning process have very little about them which could be called "intense." And yet we share them, and, in sharing, we develop and learn. Like most psychologists, Thorndike points out¹⁴ that: "Active mental life in the prosecution of intellect, morality, and skill can go on with no greater excitement than its own progress provides and with no greater tensions than the cheerful alertness of quiet interest. Emotional peace and relaxation seem indeed, as I interpret the facts of behavior, to be, in and of themselves, always favorable to improvement."

As the idealist sees it, then, the important thing in learning is that *we set ourselves* to share this or that experience, to unify and systematize it, to take it up into our own lives. Life means, in fact, more life; and the passage to more life is the process of learning. The "improvement in physical response" on which the realist insists, is a consequence of this spiritual growth; and it is this spiritual growth which, as the idealist sees it, is the essential thing in learning.

Pragmatism.—The *pragmatist* accepts with enthusiasm the trial-and-error account of learning, especially in its experimental

¹⁴ *Psychology of Learning*, 1921, p. 230.

treatment of learning as a response to specific hunger stimulations. The realist emphasis on the "stamping-in" process by the methodic use of intensity, recency, and frequency, he regards, however, with less enthusiasm. That you can actually drive home an idea in this way, so that it will eventually stay put and remain fixed and unchangeable, he does not deny. But, as Dewey insists,¹⁵ "Experience in its vital form is experimental, an effort to change the given; it is characterized by projection, by reaching forward into the unknown; connection with a future is its salient trait." In a world in which change seems to be the rule and forward-looking growth seems to be demanded of all who would continue to live successful lives, the pragmatist views with alarm anything looking like "fixation" at this or that stage of growth, whether natural or artificial. That way pathology lies, and the *idée fixe*.

Human beings are ready enough, if unsuccessful in solving the problems of life, to revert to some earlier phase and become "fixated" in some adolescent or childish dream. We should thus be careful how we establish artificial fixations in the work of our schools. In industry, "technological unemployment" means that workers who are trained by realist methods to perform one activity well, and nothing else, will inevitably, when newer and better machinery is invented and adopted, find themselves in danger of being discarded as useless. Life needs, not this kind of mechanical efficiency in which a human being is made to do what a machine could do better, but ability to solve new problems when they arise, by new techniques invented *ad hoc*. Fixation of any sort is the enemy.

In the work of our schools, then, training children to be copperplate writers, or adding machines, or walking Latin grammars, or gramophones who can repeat on request the names and dates enshrined in history textbooks, or even every word of The Hundred Best Poems—is, at the pragmatist sees it, to ruin them for life: i.e., for facing and solving the problems which biological and social life, in all its forms, will certainly bring their way.

¹⁵ *Creative Intelligence*, 1917, p. 7.

All that human beings so trained are fit for, is a shadowy, parasitic, and celibate existence in some academy which has outlived the occasion of its founding by some five hundred years, and regards life as an impertinent intruder to be kept ruthlessly outside the ivy-grown gates.

And further. The improvement in biological and social response which comes with learning is, at the pragmatist sees it, always specific and particular, related to one detailed problem and not, as a rule, applicable, without readjustment, to other problems. This means that there is no cumulative force in learning, no cultural deposit which grows steadily as we solve more and more problems. The idealist believes that the personality goes on developing continuously, passing from the solution of detailed empirical problems to an all-embracing depth of transcendental insight: an insight into a principle which henceforth is of universal application, helping directly in the solution of any and all problems. The pragmatist has no faith in any such philosopher's stone. As he sees it, problems are separate and isolated. Each is complete in itself. The past has very little influence upon the future.

It does not at all follow that, because I have solved a large number of problems in the last five years, I can somehow sit back and let the cumulative force of my tendencies to solve problems take care of any problems which may arise during the next five years. There is no such cumulative force. Each new problem is a new challenge to my powers, demanding new methods and renewed application. If I "sit back," I shall simply drift downstream. A student who has passed brilliantly all tests applied in school and college, simply slumps if he does not keep on pressing forward after graduation. The "cumulative achievement" which the realist professes to measure, means nothing and less than nothing if the next problem which comes to us is not dealt with on its own merits, by the invention of a new and specific technique and the application of new energy and industry.

Every problem is a new problem, and every day is a new day. The future does not grow of itself out of the past. It has to be

called into being by efforts made here and now. The reputation of our past deeds is like the reputation of our great ancestors: something pleasant, perhaps, to contemplate and dream about, but not a very present help in trouble. The tendency to let nature take its course is usually accompanied by intellectual arteriosclerosis. But modern life needs young men and men who keep young.

So, too, the realist belief in systematizing the techniques and results of science does not commend itself to the pragmatist. He does not believe that progress is continuous and that the present builds upon the past. On the contrary, he is assured that progress is discontinuous and piecemeal. It involves discarding the past. In industry, the discovery of a new process or the invention of a new and better alloy does not lead to a further extension and expansion of factories already in existence. It usually involves completely scrapping the buildings and processes hitherto used, and starting afresh, with a clean sheet.

The pragmatist believes, then, that progress and the forward-looking mind demand a complete break with the past, a complete scrapping of the conventions, beliefs, and usages which were adapted to other ways of living, and the invention *ad hoc* of conventions, beliefs, and usages adapted to our most modern ways of living. It has often been proclaimed that culturally we are a century or two behind the advance of science. The pragmatist wishes to overcome this cultural lag by throwing overboard the almost medieval curriculum still found in so many schools, and by putting in its place a thoroughly modern curriculum with thoroughly modern methods, so that life within the smaller school community will keep pace with life in the larger social and industrial community.

To sum up: For *realism*, learning is a process of physical interaction between an organism and a brain and the physical environment, resulting in improved physical response on the part of the organism, in its reactions to physical stimulation. The process of improvement proceeds by trial and error and by the gradual

stamping in, upon the nervous system, of the reactions which lead to success. The process leads to the building up of systems of tested knowledge. For *idealism*, learning is a process of spiritual intercourse, initiated by a self and resulting in that spiritual growth which comes from sharing experiences. It culminates in insight into the principle of reflective self-creation. For *pragmatism*, learning is the process of social interaction which results in the discovery of new techniques which can be applied to our modern biological and social problems. It is essentially discontinuous and piecemeal, and involves a complete break with the past, a complete rejection of system, and a complete disbelief in any sort of transcendentalism.

TOPICS FOR DISCUSSION

1. How (if at all) does "learning" differ from "memory," from the standpoint of (a) realism, (b) idealism, and (c) pragmatism? Consider with special reference to high school English, foreign language, science, or mathematics.
2. How far is "a complete break with the past," such as the pragmatist advocates, (a) possible, and (b) desirable, for high school pupils? Is not the school the community's institution for passing on the community traditions?
3. Compare the "innocent-bystander" theory of the "impartial observer" with the "personality-merger" theory, in respect of its practical efficiency for pupils studying, at the high school level, (a) history, (b) music, (c) Latin grammar, and (d) the poetry of Wordsworth.
4. How far are "systematic knowledge" and the solution of "new" problems really inconsistent with each other, as the pragmatist supposes? Consider in relation to high school or college physics, geometry, history, or literature.
5. "A little learning is a dangerous thing." How far would this statement be accepted as correct by (a) a realist, (b) an idealist, and (c) a pragmatist? Consider with reference to high school subjects.
6. Does the "personality-merger" theory differ at all from the "trial-and-error" theory of learning? Consider with reference to high school subjects.

7. The idealist believes that there is such a thing as "spiritual growth," and the pragmatist disbelieves it. Is it possible to decide which of the two is right? Consider with reference to high school or college subjects.
8. The realist believes that there is such a thing as "cumulative achievement," and the pragmatist denies this. Is it possible to decide which of the two is right? Consider with reference to high school and college subjects.

EXERCISE

Try to identify the following passages as realist, idealist, or pragmatist in tone:

- a. Learning may be defined as a process of modifying or reorganizing our customary modes of procedure in such a way as to enable us to react successfully to novel situations. (H. A. Carr.)
- b. In learning, it is the subjective attitude of the pupil that is important, rather than the objective process. (Bagley.)
- c. In the well-conducted class exercise, no small part of the teacher's work is to stimulate to reflective activity, in question-answer, comparison, discussion, and a multitude of other types of reflective activity. (H. H. Foster.)
- d. The educational guidance of learning emphasizes the kinds of bonds formed more than does the unaided practice of the learner left to himself. The graded, propaedeutic, and ancillary exercises of a good textbook (in arithmetic), and its variety of drills and applications, represent a range of selection and an amount of rejection of possible bonds to be formed that would surprise anyone unacquainted with the experimentation in the teaching of arithmetic during the past four centuries. There is no surer means to improvement than to learn only what is necessary for it; and no surer waste than to form with great labor useless or irrelevant bonds. (Thorndike.)
- e. Learning goes back, ultimately, to unlearned acts. Learning is modification, and there must have been something there to modify. The conditioned reflex is based upon a natural reflex. Action patterns are built up out of simpler acts. Observation depends on the possession of the senses. The individual must start with unlearned activities, and proceed from them in learning. But whether all his development, from the initial stage on, consists of learning

or whether there is also a process of natural growth, is a question still to be examined. (Woodworth.)

- f. Is a man a creature of circumstance, or the master of his fate? Is he what his heredity makes him, or what his environment makes him, or does he really make himself? The answer to all these questions is, Yes. (Woodworth.)

FOR FURTHER READING

The accounts of learning in the various psychologies of learning and in the various textbooks of psychology.

Chapter XIII

SUBJECT MATTER

WE HAVE now completed our study of the more general and fundamental problems of educational philosophy, and are in a position to apply ourselves to the more specific problems connected with classroom work: the problem of the curriculum, of incentives, of methods and techniques. Let us begin with the content of the curriculum, i.e., the subject matter of education. This has always been a matter of debate among educationists, and has led to various administrative devices, such as the "classical side," "modern side," "science side," etc., in some large schools, and to the development of separate and distinct smaller institutions, each specializing in some one curricular field.

Present Situation.—In recent times, the prevailing tendency has been to "give the people what they want," and for institutions to overlap in their desire to attract students, providing instruction in all subjects for which there is popular demand. In times of expansion, such development, along lines indicated by experience in the cutthroat competition for students, and by nothing else, is natural and apparently inevitable. But when the days of contraction come, when institutions with diminished resources take stock of their hodgepodge of courses offered to all and sundry, and inquire whether there is not some definite and special task to which they can devote themselves with prospects of success, the question of principle again comes to the fore.

In our schools, speaking generally, certain subjects belong to the curriculum by the dead weight of tradition, long after the social conditions which made such subjects fundamental have passed away. Knowledge of these subjects constitutes a part of recognized "culture" in certain social groups; and where such

groups are influential, the value of these subjects as instruments of education is scarcely questioned. Among subjects thus established by tradition in our schools are certain languages, English, Latin, French or German, and certain sciences, physics, chemistry, botany, or zoology, with mathematics almost universally demanded and offered as auxiliary to science and business, and with a course in general science or in social science widely offered and widely taken.

Among these subjects, courses in English, mathematics, and history are frequently prescribed for all students, and a narrow choice of certain languages and certain sciences is enforced by innocent-appearing regulations. An apparently wide choice among a number of "free options" or "electives" tends, in practice, to be narrowly restricted by the necessity of securing the approval of a faculty "adviser," who is charged with the duty of seeing that the student's choice of subjects constitutes a coherent whole.

Realism.—What effect does the adoption of philosophical principle have upon the subject matter of education? *Realists* tend, almost always, to insist upon its importance, and upon the importance of selecting the "right" subjects. The authority of the realist philosopher Herbart is invoked on behalf of the view that the mind *is* what it studies. When we apprehend, the content apprehended is just taken in—i.e., taken into the nervous system via sensation, and established there by association—without alteration, except in so far as interaction with other contents, similarly established or in process of being apprehended, brings about alteration.

For example, if two students take a course in Shakespearean Drama, and A has previously spent two years in studying the extant Greek plays while B's two previous years have been spent in studying the form and grammatical structure of Old High German instead, what will happen? The objective content of the Shakespeare course is, in itself, one and the same. But in relation to the content of A's mind, certain analogies and associations will form, which will emphasize certain aspects of the Shakespeare course and let others drop out of sight. In relation to the content

of B's mind, certain other, very different, associations will be formed. Each man *is*, from the realist point of view, the original resources of his nervous system, *plus* the contents of all the subjects he has studied, *plus* all other objective influences which have been brought to bear upon his nervous system in its interaction with such contents.

The consequences of the whole-hearted adoption of this view, when applied to educational questions, are of far-reaching significance. In the first place, if a man *is*, practically, what he has studied, the duly certificated products of our standardized schools should be practically interchangeable. Almost any graduate of a standardized medical college, or of a standardized engineering or law school, should be interchangeable with any other graduate of a similar institution. Hence, in fact, the widely accepted view of the practical equivalence of certain certificates, not only from professional schools, but also from arts colleges and from all sorts of educational institutions. It may seem a far cry from the standard of the fifth form at Rugby to the matriculation requirements of a Middle-western university in the United States. But the dean and his advisers will prove to be equal to the task set them; and, in practice, their decisions as to the equivalence of certificates will be found to work no injustice on the whole.

In the second place, the emphasis upon objective contents leads to the search for objective measures of such contents. Objective examinations of the Yes-No and multiple choice type have been found applicable to a wide range of subjects. They may be used to measure, not only the strength of the associations formed—what is popularly known as “memory of the content”—but also the degree of insight into the relations of the parts of the content to one another. By the use of analogies with one term of the analogy missing, and a number of similar devices, the grasp of form, law, and principle can receive standardized, objective measurement; and in this way it is possible to obtain an objective measure of the student's achievement in most of his courses. A case history of an individual student, showing not only what courses have gone into his make-up over a period of years, but

also his "cumulative achievement index," is, from the realist point of view, of great assistance in any kind of personnel work with students.

In fact, "objective measurement of student achievement" lends itself to all kinds of experimental research in solving educational problems. The influence of participation in extra-curricular activities upon objective achievement in the regular studies can be investigated in great detail over a wide field, in such a way that general conclusions can be drawn. Sport, social activities, commercial activities, no outside activities—all such influences can, in the end, be evaluated in rigidly objective terms. The value of taking a year off from college study can be investigated for its effect upon "achievement" after the student returns. If it is true that to take off the third year of a four-year course and spend it in industry, and then to take up one's third and fourth years makes the standard of objective achievement show improvement over those of one's fellows who had spent all four years consecutively in college, it is important to know that truth.

Again, how much of the content of a course is actively operative in the association-systems of the student six months or a year after the examination has been taken? Such a question is obviously of importance for the value to be attributed to the taking of "prerequisite" courses in any field. Realists for the most part believe it important that the parts of a subject should be studied "coherently" and "in proper sequence." For example, higher mathematics obviously presupposes knowledge of elementary mathematics. We should expect to find a genuine, objectively measurable difference between students who have completed an elementary course in the previous session, and students who request permission to register for the advanced course without prerequisites—other than, perhaps, an alleged amount of private reading during the vacation.

In fact, the whole question of the value attributed by realists to prerequisite courses can be treated by scientific experiment instead of dogmatic opinion. If such experiment proves, beyond the possibility of doubt, that students, once the examination is

safely passed, speedily forget almost the whole of the prerequisite content, shall we not have to consider revising the rules as to the "proper sequence of courses"? Shall we not agree with Thorndike, when he says,¹ "I am suspicious of educational achievements which are so subtle and refined . . . that they cannot be measured. I fear that they do not exist." It should perhaps be added here that, in spite of such experiments, realists as a rule refuse to draw this conclusion. They still think, as they thought before, and as it is characteristic of realists to think, that knowledge of a subject is built up block by block, and that the foundations have to be well and truly laid—even when they are not to "show" afterward—if the superstructure is to be lasting

Such and innumerable other problems lend themselves to exact experimentation if the realist view of education as the assimilation of objective contents, objectively measured, is adopted. Advisers of a realist turn of mind believe that, with a student's record of a few years before them, objectively measured, it is possible not merely to advise as to what subjects should be built upon the existing foundation—so that, once a Latin student, one must always be a Latin student, and once a chemist, always a chemist—but also that it is possible to advise a prospective student as to whether he can hope, with success, to undertake a college course at all.

Vocational advisers are almost always of the realist type, and almost always rely enormously upon these objective measures of objective achievement. And for many a student too, such measures seem satisfactory. When a student interviews his professor as to "how he is likely to do" in this or that subject, if the professor merely gives him a list of his "marks" up to date, and shows him how to take the average and compare it with the weight of possible examination marks according to the rules approved in the given institution, the student is usually quite satisfied with the remorseless logic of the figures. To such apparent

¹ E. L. Thorndike, *Proceedings of Indiana University Conference . . . 1914*, p. 141.

"objectivity" he usually submits without further question. It seems to paralyze criticism and to win immediate acquiescence.

As to what subjects are "right," the realist educator admits, of course, that the right kind of subject is not a matter of language versus science, or anything as simple as that. The right subject, i.e., the kind of content which will produce the best educational results for a given student, is a function (a) of the student's previous training, (b) of the relation of the parts of the subject to one another, and (c) of the social demand for students so trained. The student should, in general, study such subjects as his previous experience shows him to have studied successfully, provided that there is a social demand for students so trained. He should study such a subject coherently, taking its parts in proper sequence, so as to build up his knowledge in the most approved realist style.

The realist adviser believes himself competent to lay down beforehand a list of such subjects, and the order in which they should be studied, in preparation for any socially desirable profession, such as law, medicine, dentistry, nursing, business administration, high school teaching, etc., and even for such professions as "professor of moral philosophy." The programs thus constructed generally leave a small margin of variable contents of the "elective" type.

But, while more modern in form and far more exact in appearance, such programs of study remind us strongly of the "advice as to reading" which a man like the celebrated Dr. Johnson in the eighteenth century did not hesitate to give to young men who sought his advice. As we all know, few of those who give such advice have themselves been through the exact sequence of courses which they include in their programs. But if you believe, as the realist does, that education is an affair of objective contents taken in proper sequence, then such programs and such advice are an inevitable part of any realist scheme of education.

In the end, the realist administrator, like the realist knight-errant, believes that, as we live in a physical environment and in a scientific age, the subject matter of most general importance to the student is the content of the sciences which investigate physi-

cal nature: especially physics and chemistry, with mathematics, German, and French, as auxiliary subjects. A little time spent on English is also advised; but not time to be spent on the niceties of Anglo-Saxon, or Chaucerian English, or even on the Age of Shakespeare.

What the realist wishes the students to acquire, in addition to the content of the physical sciences, is precisely such familiarity with modern languages as will enable him to read, and in certain cases write, scientific papers in the languages in question. A study of literature, as such, he frowns upon, particularly because he believes that literature is out of touch with the real line of human advance. Scientists, he is convinced, have advanced so far that literature, including the literature of the present as well as of the past, seems to have been marking time, expending its energies in describing and stimulating the simpler biological and social emotions, and not to have emerged from the dark cave of subjectivism.

Toward the remainder of the arts, painting, music, and the rest, which are frequently studied in high school and college, his attitude is the same as it is toward literature as a subject of study. If such arts are studied as stimulants to subjectivism, he is opposed to their inclusion in the curriculum. If they are studied objectively, especially in sociological science in some one of its branches, he does not insist upon their elimination. But he has to be convinced that sociological study is really "scientific" and truly objective; and he is, as a rule, a little hard to convince.

Idealism.—The *idealist*, with his view of education as self-development, listens to all this talk of objective study of objective subject matter with growing amazement. To him, it is self-evident that the task of the educator lies wholly within the realm of the subjective. If he has to assist the pupil to become a well-developed self, it is precisely the emotions, both biological and social, which need to be stimulated in such ways as to make of the pupil an older and wiser person. As Bagley says,² "The main aim in education is to instill ideals that will function as

² W. C. Bagley, *The Educative Process*, 1913, pp. 220, 263.

judgments. . . . The subject matter of instruction must be totally subservient to this aim. . . . It is the subjective attitude of the pupil that is important. . . ."

Older idealists, such as Plotinus, summed up the view of antiquity by pointing to the "three pathways" of love, art and the pursuit of knowledge: that is to say, to the three ideals of creating beauty and goodness in human life, creating beautiful objects in the environment of human life, and creating the sciences with the ideal of truth as their aim, inculcating truthfulness as the dominant human virtue. All three "pathways" were regarded as leading to the same goal: the philosophical and mystical insight into the ultimate recesses of a reality envisaged as spiritual, as a perfect Self, transcending, in its absolute perfection, the resources of the merely empirical, everyday self of human beings, but capable of endowing the earnest seeker with some of its own transcendental significance.

The modern idealist thinks that the pathways to reality are indefinite in number. *Any* avenue of experience may, if pursued faithfully, lead to the ideal vision. Science? Yes, quite as much as any of the arts. Love? Yes, quite as much as any of the sciences. Art? Yes, quite as much as any other way of living, feeling, acting, and thinking.

As the idealist sees them, *all* subjects of study are essentially and fundamentally arts, in which the self is genuinely creative, that is to say, in which the self creates, not merely something objective—a book, a symphony, a house, a fortune, a new branch of laboratory investigation—but the creative self. The music student, in his daily intercourse with Bach and Beethoven, is creating a musical self, that is, a self which is musically creative. The life of Beethoven shows this in the clearest possible light; but it is also a matter of personal daily experience to the earnest student of the great musicians. It is said that Brahms learned to create symphonies by studying the symphonies of Mozart; and many of our modern musical academies, like many of our modern art schools, teach by appealing directly to the creative impulse in the pupils, the *nisus* which is there in all of them.

And this is true, as the idealist sees it, of all subjects of study. The man who reads a book, a poem, drama, prose story, or descriptive or analytical textbook creates in his own mind, with his own imagery and in his own personal way, the situation about which he is reading. By creating it in his own way he becomes more creative. His self expresses itself in new fields and in new directions, and grows in power as well as in extent as it makes itself at home in this field and in that. We can see this in the "How-to-make . . ." columns of our magazines, which appeal directly, and seldom altogether in vain, to our creative response. We can see it in the essay writing encouraged in our schools, in which no two pupils will handle the same theme in the same way. In the Honors School of *Literae Humaniores* at Oxford, the chief activity of the students consists in writing two weekly essays over a period of two years. In such writing they develop themselves creatively, interacting with the creative writers whose work they thus study. The self creates itself by *doing*, whether the subject matter is what is commonly called "artistic," or whether it is scientific, or of any other nature.

All pathways of self-development, faithfully pursued, call to the inner *nisus*, and tend to culminate in a progressive series of idealist insights into the nature of reality as ultimately spiritual. Thus the physicist may start by believing that what he is investigating is the nature of "objective" reality, and that he is leaving the self entirely out of the picture. But the personal equation is not thus naïvely to be dismissed. After a while, when he becomes immersed in the deeper reaches of his subject, if he asks himself, What am I really studying? he begins to realize that he is living in a world of definitions and consequences, that he is investigating the logical consequences involved in the questions he is posing, that he is setting himself problems, and that his answers are the responses of his self to the questions his self has raised. It is then that he realizes that physics passes over, without a definite break, into metaphysics or philosophy proper, and that his mind has apparently never left the realm of mind, but that "nature" is

simply the mind's "other," its social counterpart, in which the relation of creator and creation seems, in the end, to coincide.

The idealist-minded teacher of science fully appreciates this. As T. Percy Nunn says,³ "The prime contribution of the heroes of science to the world's cultural wealth is not the scientific method, but the scientific life. . . . Our proper aim is to make our pupils feel what it is to be inside the skin of the man of science, looking out through his eyes as well as using his tools, experiencing not only something of his labours, but also something of his sense of joyous adventure."

Is there any one field in which idealism is peculiarly at home? We have seen that realists emphasize the value of science in the curriculum. Do idealists, perhaps, emphasize especially the arts, the literature and the cultural products of the past and present, or possibly religion? The answer, if we are guided by what is known of the history of philosophy, is in the negative. The great idealists have developed quite as much by the pathway of science as by the pathway of religion, or of any of the arts. Literature apparently has no advantage, as a subject of study, over music and the other arts, or over physics, mathematics, or any other of the sciences. Any subject of study which provides opportunities for the development of a creative self is, according to idealism, a proper subject to be studied; and all subjects of study, without exception, provide, or are capable of providing, such opportunities.

But while it is true that the subjects selected should not merely appeal to the individual student, but should also have a social value—so that the pupil who has studied faithfully does not find himself, in the end, left high and dry above the ebb and flow of current events—it is those subjects which have about them some flavor of personal greatness which receive from idealism the greater emphasis. To study Shakespeare is of more importance for a would-be creative self than to study books which do not reach the level of "literature." To study Beethoven is of more importance than to play the most modern jazz; in every field,

³ In "Science," in *The New Teaching* (ed. J. Adams), p. 160, slightly condensed.

where there is greatness there is possibility of growth; and it is in growth and self-development that the idealist is particularly interested.

One further point. The realist has stressed subject matter and has left out the teacher. The idealist stresses personality and is comparatively indifferent toward mere subject matter. Where a realist advises a student to take such-and-such subjects which together constitute a well-rounded whole, the idealist advises him to take courses with such-and-such teachers, without inquiring too closely into *what* courses those teachers happen to be offering. It is the personal stimulus and intercourse which appeal most strongly to the inner *nisus*; and from the idealist standpoint, it is the response of the inner *nisus* which is the vital thing. Systems and well-rounded wholes, if external, as they are with the realist, are not, of themselves, particularly educative. But given the vital stimulus so that the pupil's inner self is awakened to self-development, systematic knowledge can be acquired later, if needed. The self, when awakened, will look around and provide for itself. If the self is left unawakened, all the system in the world which you may provide for it *ab extra*, will be dead system.

Pragmatism.—The *pragmatist*, with his belief that problems, unlike misfortunes, tend to come singly, one after another, has no special use for the systematic "subjects" in which the realist believes. He does not wish a student to be turned into a Latinist, or an analytical chemist, or a medieval historian, knowing everything of one subject and nothing about everything else. Books intended to be used for reference purposes may well be put together systematically; but when it comes to the growing members of the community, he would prefer them to be taught *how to use* reference books—viz., when wanted, and for purposes of reference—rather than to be turned into walking books of reference. Subject matter for the pragmatist is accordingly an excuse for training a student in suitable techniques, techniques for the direction and control of events.

A realist student of Chemistry 1-2 will be able to answer an examiner's questions on the objective content of the course. He

will know it all, and will be able to reproduce that knowledge, upon demand, over a certain period of time. The pragmatist student of the same course might well fail on the examination if it is both comprehensive and severe. But, while unable to reproduce the whole objective content of the course, he will prove competent to devise successful experiments resembling those he has studied, but applying to new problems; and the aptitudes he has acquired will serve him in good stead over an unlimited period of time. So, too, a realist student of literature will be able to pass a good stiff memory examination, but may prove weak in original essay writing; whereas a pragmatist student of the same literature may write a very indifferent examination paper, but will prove enthusiastic and astonishingly competent if given an opportunity to distinguish himself in solving some original problem.

This difference runs through the whole range of subjects studied. Objective information, the darling of the realist, leaves the pragmatist cold and sceptical. But the opportunity to do something himself, to apply new techniques to problems hitherto unsolved, whatever the field, will stimulate the pragmatist to express himself and show what he has in him. As Johnson says of handwork in the schools,⁴ "Handwork has for its fundamental principles: (1) progressive activity for developmental functioning and (2) the acquisition of skill in the use of tools and material in order to foster adaptability and resource. . . . Apart from the fact that it is interesting work and enjoyed by the boys, . . . it provides tremendous scope for the exercise of ingenuity and the varied application of constructive principles. . . ." The readiness of the pragmatist to apply such techniques to new problems distinguishes him from the realist, who may complain that the new problems were not contained in the textbook. We have here the difference between the walking encyclopedia and the experimentalist, who knows that he does not know, but will try to do something helpful.

As to what contents should have places in the curriculum, the

⁴ G. F. Johnson, "Handwork," in *The New Teaching* (ed. Adams), fourth edition, pp. 342-343, 350, condensed.

pragmatist, like the realist, feels drawn to the sciences rather than to the languages, and to studies with a future rather than to subjects with a past. But while neglecting strict history, especially ancient history, and the strictly historical method of approach to all subjects of study,⁵ the pragmatist differs from the realist in dethroning physics and chemistry from their places of importance in programs of study, and would substitute for them the social sciences, particularly sociology and human psychology, in all their more obvious branches. He feels that physics and chemistry lead the student away from the concrete realities of experience to a systematic realm of symbolic abstractions, while sociology and psychology familiarize the student with human experience as it is actually experienced, in all its concreteness as well as in its fragmentariness. For the rest, as contrasted with the realist, the pragmatist is relatively indifferent to questions of subject matter. *Any* subject which provides the teacher with opportunities for training the pupil in the latest scientific techniques of control can be utilized to turn the pupil into a pragmatist, i.e., into a piecemeal experimentalist who is not afraid to devise new techniques for new social problems—and that is really what the pragmatist asks of the curriculum.

The contrast between idealist and pragmatist in respect of subject matter is primarily a contrast in how the subject matter is used. The idealist uses it to develop a transcendental self-consciousness on the part of the student; the pragmatist uses the same subject matter to develop empirical efficiency in applying new techniques to here-and-now problems. From the idealist point of view, the pragmatist pupil passes through the subject without becoming educated. He is left what he was when he started, a short-sighted success-seeker at a rather low level of efficiency, spiritually untouched by the higher altitudes and insights to which

⁵ Cf. John Dewey, *The School and Society*, revised edition, 1916, p. 155. "If history be regarded as just the record of the past, it is hard to see any ground for claiming that it should play any large rôle in the curriculum of elementary education. The past is the past, and the dead may be safely left to bury its dead. There are too many urgent demands in the present, too many calls over the threshold of the future, to permit the child to become deeply immersed in what is forever gone by."

his studies might have led. From the pragmatist standpoint, the idealist student has lost himself in a self-projected haze which prevents him from attaining any obvious and worth-while successes in the only world which means anything to beings with nervous systems.

Our conclusion is that, if we apply philosophical principles to curriculum-building, from the *realist* standpoint, we shall emphasize the importance of objective subjects, especially those subjects which fall within the field of natural science, and shall relegate to a very minor place, if not altogether exclude from the average curriculum, all subjects which stimulate and appeal to the subjective side of pupils. From the *idealist* point of view, we shall emphasize, not one subject rather than another, but the quality of personal greatness which some subjects possess in abundance. We shall also emphasize the qualities of personality possessed by certain teachers, whatever their subjects. Our stress throughout is upon subjective, as opposed to merely objective, values. From the *pragmatist* standpoint, we shall emphasize the social sciences, but not on their merely objective side. All subjects on the curriculum will be used to develop mastery over techniques in order to solve new problems, rather than to train a memory capable of flawless reproduction of systematic contents. The mastery over techniques is emphasized for its empirical social usefulness, and not at all as leading to the apprehension of any sort of objective truth, or to the development of any kind of transcendental perfection of selfhood.

That is to say, the realists are interested in subject matter as such. The idealists and pragmatists are interested in it, not so much for its own sake, as for the extent to which it can be used to develop the aptitudes and insights with which idealists and pragmatists are, respectively, concerned.

TOPICS FOR DISCUSSION

1. Discuss the place of gymnastics and physical education generally, in the school curriculum, on the basis of (a) realist, (b) idealist, and (c) pragmatist, principles.

2. Discuss, similarly, the place in the school curriculum of dramatics or of singing.
3. Discuss, similarly, the place of carpentry work and machine-shop work.
4. Discuss, similarly, the place of public speaking and journalism.
5. Discuss, similarly, the place of home economics in its various forms.
6. Discuss, similarly, the value of such extra-curricular activities as school games, interfaculty and interschool debating, and student self-government.

EXERCISES

Try to identify the following passages as distinctively (1) realist, (2) idealist, or (3) pragmatist:

- a. So far as possible, the attitude of a boy toward his work should be either that of solving a problem or working out a difficulty which will eventually lead him to the knowledge of some truth, the working out and establishing of some principle. (G. F. Johnson.)
- b. The object to be aimed at in a national system of physical training is that the system shall be gradual, uniform, progressive, a continued rise from the first exercise to the last. . . . Every boy and girl should be made to feel the necessity of keeping physically fit through life, and not regard the cessation of physical exercises at the close of school life as a happy release. (G. M. Campbell.)
- c. Starting with such knowledge as he has, the boy draws figures, living people doing this and that, with spirit and energy. Becoming conscious of mistakes and of gaps in his knowledge, he is set to look for the truth and to fill the gaps . . . Instead of becoming jaded he grows keener, more critical, but with ever-increasing command of his subject, his materials, and himself. (H. B. Carpenter.)
- d. As experience widens, the critical comparison of different objects becomes more marked, and when the modelled illustration of a scene from life, or from a story, is attempted, the fitting together of the various parts presents an absorbing problem, and sets the youngsters to work, observing, remembering, and reasoning in the liveliest way. (H. B. Carpenter.)
- e. A subject justly claims a place in the school only in so far as it represents a movement of primary importance in the evolution of the human spirit. That criterion is clearly satisfied by the study

of great literatures, of art and music. Science claims admission on the same ground. (T. Percy Nunn.)

- f. To study history is not to amass information, but to use information in constructing a vivid picture of how and why men did thus and so; achieved their successes and came to their failures. (Dewey.)

FOR FURTHER READING

Dewey, J., *Democracy and Education*, Ch. XIV.

——— *How We Think*, pp. 61-64, 80-82, 112-113, 142-148, 181-189.

Horne, H. H., *Philosophy of Education*, pp. 101-137.

Chapter XIV

INTEREST AND EFFORT

WE NOW take up the second of our specific problems, the problem of incentives. Is it "discipline" which induces school children to study their lessons, or is there a natural "interest" to which teachers can appeal? Or do children perhaps have a natural, instinctive tendency to "imitate," to "ape" the manners, attitudes, and interests of their teachers and older school fellows? Let us consider, first, the question of "interest" and "discipline" or externally induced "effort," and the so-called "sterner virtues."

Present-day Vacillation as to "Disciplinary" Value of School Work.—Up to and including the last generation of educational authorities, it was generally believed that certain studies, whatever their other merits, had a certain "disciplinary" value. This value was supposed to be, not intellectual, but moral, an affair of character. Some subjects of study were regarded as "interesting in themselves" and as requiring no "effort" to study them. General literature written in the mother tongue, particularly recent novels, plays, and poems; attractive lectures on travel or on science, especially when helped out by lantern slides and experimental demonstrations; a good deal of "cultural" material, particularly in the fields of painting and music, but also including the more decorative side of the applied arts of carpentry, embroidery, pottery, metal work, etc., were regarded as "interesting," but of no special value for the upbuilding of character.

Other subjects of study, such as mathematics and Latin grammar, in addition to their value as providing keys to many otherwise closed fields of experience, were regarded as requiring effort to stick to them over a period of years, and thus as helping to build up the sterner virtues of persistency, determination, and

thoroughness. Not merely in England, but everywhere, disciplinarians expected their pupils each day to do their duty, with the idea that such pupils would be developing resistance and will power which would stand them in good stead when the days of trial should come. Even so great a psychologist as William James believed in the disciplinary value of effort in this sense, and it has been said that "it does not matter what you teach a boy, as long as it is distasteful to him."

In the present generation, the advance of educational psychology has banished the belief in disciplinary value as attaching to certain specific subjects. It has been discovered that no subject of human study is essentially uninteresting. Human beings really enjoy mathematical studies and find them, not merely admirable, but also interesting in themselves. This is true, not only in the case of men like Descartes and Leibnitz, or Russell and Whitehead, but also in the case of quite large numbers of boys and girls in our schools. It is also perfectly possible to find Latin interesting, not only in so far as the more attractive literature is concerned—the writings of Virgil or Cicero at their best—but even as far as the accidence and syntax are concerned. This is true in the case not only of great scholars, but also of fairly large numbers of boys and girls in our schools. Just as children insist upon being taught their letters and the art of reading the mother tongue if they see other members of the family enjoying this art, so there are children who insist upon being initiated into the exciting and interesting game of reading and writing Latin, of declining nouns and conjugating irregular verbs, if they grow up in a family where Latin is read. So too with the study of Greek. Many children find this study perfectly fascinating, not merely in relation to the stories in Homer or Euripides, but Greek as Greek, as mere language and grammar. There are *no* subjects which are intrinsically and essentially uninteresting to the inquiring mind of childhood and youth.

To realize the change that has come over educational literature, we do not have to go far back. The new attitude is very recent. The Reverend Edward Thring, head master of Uppingham

School, writing in 1867, assures us¹ that: "There is very little want of *ability* in boys naturally, but there is great want of *willingness*, an ingrained antagonism to learning, and dread of it, and very often utter incapacity for self-teaching. . . . Boys never learn unless a certain amount of compulsion is applied. The very best will be idle and inattentive . . . and many are idle and inattentive always." And even in *The New Teaching*, we are informed by the editor² that: "A great proportion of the pupils do not *want* to learn. Outside critics too often write as if schoolboy nature had changed, and pupils no longer creep unwillingly to school. Increased public interest in education is not yet sufficient to change juvenile human nature. The majority of pupils do not desire to work." But the more general present-day position is formulated by Percy Buck, who says:³ "The New Teacher aims at getting the tentacles of his pupil's interest so firmly entwined round a subject, that they will refuse to let go their hold until the interest is satisfied."

And further: not only are all subjects of study potentially interesting. They are all potentially disciplinary, in the most important sense. A subject does not have to be really "distasteful" to the pupil before he is able to study it in a persistent, determined, and thorough manner. On the contrary: the more he likes a subject, the more he studies it; and the more he studies it, the better, as a rule, he likes it. From the modern standpoint, then, all subjects of study, however interesting they may be, are capable of being studied in such a way as to use and strengthen, in overcoming obstacles, the qualities of character associated with the ideal of discipline; and the older antithesis between interest and effort has, at least among informed people, dropped out of sight. Dewey⁴ illustrates the modern position, by exemplifying

. . . the little child who wants to make a box. If he stops short with

¹ *Education and School*, second edition, pp. 137, 139, condensed.

² John Adams, in *The New Teaching*, fourth edition, n.d., p. 10, condensed.

³ In *The New Teaching*, p. 300.

⁴ John Dewey, *The School and Society*, p. 39.

the imagination or wish, he certainly will not get discipline. But when he attempts to realize his impulse, it is a question of making his idea definite, making it into a plan, of taking the right kind of wood, measuring the parts needed, giving them the necessary proportions, etc. There is involved the preparation of materials, the sawing, planing, the sandpapering, making all the edges and corners to fit. Knowledge of tools and processes is inevitable. If the child realizes his instinct and makes the box, there is plenty of opportunity to gain discipline and perseverance, to exercise effort in overcoming obstacles, and to attain as well a great deal of information.

At the same time, the moral interest in discipline for its own sake is not dead. Many, perhaps most teachers, and many, perhaps most parents, regard themselves as the repositories of a kind of categorical imperative. They are priests of the cult of duty for duty's sake, and seek to impress upon the young committed to their care, the importance of "work," "effort," and "duty," independently of the degree of interest which this or that subject may excite. There is a feeling that life is real and earnest, and that to take a gentlemanly interest in this or that is not the goal, but is something entirely secondary. There is a feeling that if the school subjects are made interesting, a moral flabbiness will develop in the rising generation, and the older, sterner virtues of the race will decline. As Adams puts it,⁵ "The place given in the new teaching to interest is always a source of suspicion among the old guard of teachers."

There is thus, at the present day, a certain oscillation and confusion in the minds of most of us as to the true relation between interest and effort, with a feeling that the values attributed to "discipline" may be permitted to drop out of education. This confusion indicates that we have not analyzed sufficiently the nature of the backgrounds which here color our outlooks. Let us proceed, therefore, to investigate the three chief backgrounds to see if the confusion will disappear.

Realism.—From the standpoint of *realism*, "interest" in its varying degrees is regarded as "subjective," as a largely illusory

⁵ *The New Teaching*, p. 36.

state of excitement on the part of the pupil, which may interfere with his effective absorption of objective information. A teacher, facing a class of pupils studying Caesar's *De Bello Gallico* I, finds varying interests. Pupil A is quite excited about "Dumnorix the Aeduan" and wants to know what happens to him in the end. Pupil B is interested mainly in whether all Gallic chieftains have names ending in "ix," and pupil C is excited about the Roman battle line and the Roman method of hurling the javelin. Other pupils are interested in the syntax of certain sentences, and wonder whether, if they had been written by a modern schoolboy, the teacher would have passed them as "good Latin," while yet others have a multiplicity of interests connected with their "Caesar," if at all, by only the slenderest of threads.

Faced with this immense variation of subjective interests, the realist-minded teacher, with the subject and the examination clearly before him, checks and subdues his effervescent pupils as much as he can. By the time-honored drill methods of intensity, recency, and frequency, he impresses upon their sensitive nervous systems the grammatical usages, and the best English equivalents, of Caesar's way of writing. The interest in Dumnorix he quells by making pupil A look up and construe word for word, the later passages describing Dumnorix's resurgent ambition and final fate at the hands of the Roman cavalry; and, by forcing the attention of both pupil and class so that it is directed almost exclusively upon the grammatical side of the Dumnorix story, he succeeds pretty well in discouraging pupil A from ever asking another question. A few such expedients are very helpful in discouraging in his classroom, if not all interest, at least all natural expression of interest, and in concentrating attention upon the "work," the "duty" to be performed. It is said that by such methods, realist-minded teachers contribute to the creation of the English "public-school manner," with its purely formal politeness and its complete suppression of natural curiosity and interest.⁶

⁶ So, too, Ebbinghaus, in his laboratory experiments on "rote memory," used to try to eliminate the variable factor of "interest" in his experiments, not merely

So much for the negative side of realism, actively discouraging all subjective tendencies, all tendencies to dissipate energy in directions not objectively fruitful. On the positive side, however, the realist succeeds in establishing direct contact with the objective forces around him so that nothing interferes with the interaction of nervous system and physical environment. Pupils thoroughly drilled by realist methods may never open a Latin book after leaving school, and may indeed feel that the shades of the objective prison-house have so enveloped their school days that they can never be natural human beings. But at least, while in school, and for many years afterward, they did know their Caesar. They did know their declensions and conjugations, their genders and prepositions. They were disciplined into objectivity. Whether it was science or language that they studied, what they really learned was to subdue their subjective side and to lay themselves open to the forces of the environment. They learned to become a part of the world around them, an organic part, identified in principle and in detail with the forces of physical destiny.

From the standpoint of realism, then, interest, in so far as it is subjective, is eliminated. Effort, in so far as it is individual and subjective, is similarly eliminated. But discipline, the control of the individual so that he submits himself wholly to the direction of the physical world of which he is a physical part, and thus acquires something of its strength and power, something of its serenity and indifference to the fate of individuals—discipline comes into its own. The cult of objectivity for its own sake is identical with the essence of discipline; and as long as we have

by using nonsense syllables which were, *ex hypothesi*, meaningless, but also by throwing away in his waste basket the first fortnight's experimental work of each "observer." E. L. Thorndike, however, who is usually regarded as a psychologist with a realist bias, emphasizes the function of "interest" in helping to decide whether any given result shall satisfy or annoy, what situations one shall attend to, and eventually what responses one shall make. Thorndike also accepts the position of "modern educational theory, that . . . pupils will improve faster in work the nature and purport of which they comprehend, than in mere serial intellectual gyrations accomplished slavishly and mechanically." (Thorndike, *Educational Psychology*, 1921, Vol. II, pp. 22, 217-226; cf. p. 284.)

realist-minded teachers, so long there need be no fear of the decline of the sterner virtues. Foster, like many recent writers, points out⁷ that, while "drill has fallen rather out of fashion for a time, a more conservative movement has again set in, and the favorite of the earlier days is again coming into its own." He understands perfectly, however, that: "In so far as emotion or reflection is essential in any content, to that degree is drill obviously unsuited, since it aims at automatism rather than thought."

Idealism.—From the point of view of *idealism*, discipline, in the sense of external control by methods suggestive of the drill sergeant, is essentially offensive and distasteful. The idealist believes in free choice, self-initiated and self-directed, acceptance of invitation rather than obedience to commands. Invitations and impulses inherent in the nervous system, however, are regarded as external. The idealist dislikes feeling himself drawn hither and yon by the call of hunger or thirst or sex quite as much as he dislikes the commands of some externally imposed "duty." All such impulses and interests are, in the end, physical and external; and, in obeying such impulses, the idealist feels that he is in danger of ceasing to be the captain of his own soul. His attitude toward anything in the least savoring of a realist command, of the tendency to submerge him in the physical environment, is thus negative. His *is* to reason why. He stands on his dignity, repelling the tides of objectivity, secure in his possession of transcendental power.

As opposed to physical and physiological interests, in the world of stimulus and reaction, of claims and counterclaims, the idealist believes in the value of self-initiated interests. He himself takes an interest in this or that, and, in so far as his self is genuinely engaged, he believes that the motives and interests by which he guides his choice are not empirical, but transcendental. A man who decides to devote himself to art or science or philosophy, or to teaching or commerce or farming, and lives in accordance

⁷ H. H. Foster, *Principles of Teaching in Secondary Education*, 1921, pp. 34 and 83.

with his decision, is not swept hither and thither by every wave of chance. Empirical motives, empirical successes and failures, influence him, of course, and play a certain part in his life. But it is impossible to read of the early struggles of great men and women and see how, even out of empirical failure, they are able to win transcendental success, without realizing that the resources of the spirit are indomitable.

To organize, to direct, to unify; to select, to emphasize, to concentrate; to make out of chaos, an ordered cosmos; of a tangled weed-patch, a bed of flowers all smiling and fluttering; of chance discords, a design of living harmonies; of trial and error, the methods of scientific advance: such are the powers of the spirit, developed by itself from within itself, and directed toward the conquest, the progressive idealization, of the world around, toward raising it from a merely physical to a spiritual significance and status.

Interest, then, from the idealist standpoint, is transcendental in background and origin. It is not things which force themselves upon us and compel our interest and attention, except in a sense which is unimportant and merely empirical. It is we who direct our attention upon, and take an interest in, doing and being this and that; and, in so doing and being, we take things into our own lives and endow them with human and spiritual meaning. In taking an interest, it is personal, self-directed activity in which we specially take an interest: in our own activity, in sharing the personal activities of others, and in "things" only in so far as they are quasi-personal, in so far as their qualities can be taken up and made use of in an activity which is personal, part of the self-expression and self-development of a person. From the idealist point of view, interest, except in so far as it is merely empirical, entirely a matter of psychophysical reaction to stimulation, is thus not something to be repressed and eliminated, but something to be emphasized, brought out into the open, encouraged and assisted to develop into full maturity. For it is by and through taking an interest that the self grows in transcendental insight and transcendental power.

An idealist teacher, then, when teaching Caesar's *De Bello Gallico*, does not discourage questioners and crush their initiative, forcing them by external devices to concentrate upon grammar and construing for the sake of the grammar and construing. On the contrary, he sees, in the interest which each pupil takes, slight and empirical as it appears on the surface, the beginnings of that interest in the development of a creative self in which, as a teacher, he is himself especially interested. He therefore assists pupil A to take an interest in the personality of Dumnorix, in his ambition and his patriotism, and his opposition to the external dictation of the even more ambitious Caesar; and by thus encouraging the boy to mingle his own personality with the personalities of Dumnorix and Caesar, he helps him to expand and develop his own self. It should, perhaps, be added that by so teaching, the idealist teacher develops himself as an idealist teacher and is himself growing in power and insight.

As to "effort" and "work," from the idealist standpoint, these are not opposed to "interest," but are an integral part of the interest itself. The interest is an active interest, an interest in personal activity; and this activity is identical with "work" in the sense of self-directed effort. When we throw ourselves into this or that line of work, of self-directed effort, in growing into a bigger and better artist, scientist or what not, our effort is of a piece with the interest we are taking. Our effort *is* the self in its activity, just as our interest *is* the self in its activity; and self-initiated effort, self-initiated activity, and interest, in the idealist sense, are one and the same, part and parcel of one another. The only difference between them is empirical, in reference to the quantity of nervous energy at our disposal. As long as we are "fresh," with our energy unimpaired, we feel our activity as interest rather than as effort. It is only when we become fatigued, with our nervous energy for the time being used up, that we feel our activity as effort rather than as interest. But essentially the two go together. When we take a great interest, we put forth a great effort; when we take little interest, we put forth little effort. This is a matter of how far the self is engaged in the question.

As to whether we feel our activity primarily as interest or primarily as effort, this is a merely empirical matter; and the distinction is, from the idealist point of view, superficial and unimportant.

As the idealist sees it, where there is interest, there are persistency, determination, thoroughness, and the rest of the so-called "sterner" virtues. But the idealist does not regard them as "stern" or as particularly "virtuous," considered in themselves. For him, they are merely a function of the interest; and, from his standpoint, the interest is something positive, something which wells up freely from within. The activity is pure joy, the genuine life of the self. A violinist enjoys playing his instrument and making music. That is his life, his very being. A scientist enjoys making discoveries. That is his living essence, not something alien to him. To persist to the end is not different from being himself, from living his own life as he chooses to live it. He does not feel that his activity is "stern," or that it should be regarded as "duty," as "virtue, facing fearful odds." It is rather a freely chosen adventure of the spirit for which he neither expects nor, indeed, claims the praise of others. He follows his star and drees his weird, not for the praise it gets or the gain it brings, but primarily because it is in him to act thus and so.

In the same way, the idealist teacher expects his pupils to perform their tasks not in order to win academic rewards or to escape academic punishments, but primarily because they themselves take an interest in the activities, intra-curricular as well as extra-curricular, provided in the school, and find their account in the joy and growth in power which come with accomplishment. The idealist thus stresses interest, has little to say about effort, and says nothing good about discipline and the sterner virtues.

Pragmatism.—From the *pragmatist* standpoint, discipline represents the external effort to bolster up by authority, by commands and punishments, courses of action which are distasteful, unpleasant, and uninteresting, out of touch with the intrinsic motives to activity. Discipline is an extreme form of the external attitude

which rewards docile and successful activities by sugarplums or other premiums, and simply fails to comprehend that activity can be, and should be, interesting for its own sake. From the pragmatist point of view, the teacher who falls back upon discipline, whether in the form of punishments or of external rewards, as a motive to the performance of school tasks, is a poor teacher, something of a failure. In a pragmatist school there is no place for the martinet. There is also no place for the moralist, the duty-for-duty's-sake, holier-than-thou practitioner. Such moralizing is a defense reaction, a substitute for efficient teaching methods, a string of mere words, and the pragmatist will have none of it. It is an outgrowth of the "bogey-man" attitude of the poorer sort of nurse, and the "virtues" and "vices" in which it professes to believe are, one and all, unreal abstractions, useless and worse than useless, for educational purposes.

So far, then, the pragmatist, in criticizing the realist point of view, is in agreement with the idealist. But his agreement ceases when he begins to be positive. He believes that certain activities are interesting, not because a transcendental self decides, from transcendental motives, to "take an interest" in them, but simply and solely because they appeal to natural, biological and social reaction tendencies located within the nervous system of the normal individual. Dewey⁸ formulates the schoolboy's interests as: "The interest in conversation or communication; in inquiry, or finding out things; in making things, or construction; and in artistic expression. These are the natural resources, the uninvested capital, upon the exercise of which depends the active growth of the child."

The "invitations and impulses inherent in the nervous system" are not, as the idealist supposes, external. The self, from the pragmatist standpoint, is constituted of precisely such impulses. They are internal, part and parcel of the self. The pragmatist does not feel that he is ceasing to be the captain of his own soul when he finds himself enjoying his dinner or the society of some beautiful woman. He accepts the enjoyment as his very own, a part of the

⁸ John Dewey, *The School and Society*, 1916, p. 45.

self which he is and likes to be. Life is made up of such things, and he accepts them as he accepts all natural satisfactions. They are empirical; they fluctuate; they come and go; they are transient. What of it? The pragmatist takes them as they come, and enjoys them for what they are. He does not wish them to be permanent and transcendental. He likes to have them transient and empirical.

So too with the pragmatist schoolboy. He does not make his way to school with transcendental steps, seeking to realize transcendental ideals, a pilgrim in quest of eternity, acquiring a self which is not of this world. Not at all. He comes to school because he likes coming to school. It is a jolly sort of place. He throws himself into the acquisition of mathematical techniques because he likes mathematics and can see that they will be of direct use to him, not only in school, but in the life of the industrial community of which he is a member. He throws himself into his "Caesar," not because he believes that it is worth while trying to be a Latinist as such, but because Caesar was a boys' man, with an appeal to the leadership *motif* present in all boys who are real boys; because Caesar's politics are like modern politics, and Caesar's methods not unlike modern methods—a little unscrupulous, but leading to success in the aggressive, manly way that any boy can understand. The activities of school life are interesting in themselves, and fit in with the needs of a boy's nervous system, and also with his desire to turn himself into a young citizen of the real world around him.

In pursuit of what interests him, the pragmatist makes whatever effort seems called for. He overcomes obstacles and enjoys his victories in his intra-curricular, no less than in his extra-curricular, activities. Dewey says:⁹ "The genuine principle of interest is the principle of the recognized identity of the . . . proposed line of action with the self; that it lies in the direction of the agent's own self-expression and is, therefore, imperiously demanded, if the agent is to be himself. Let this condition of

⁹ *Interest as Related to Will*, 2nd supplement to *Herbart Year Book for 1895*, pp. 213-214.

identification once be secured, and we neither have to appeal to sheer strength of will nor do we have to occupy ourselves with making things interesting to the child."

Plato said long ago that the student should learn as in a game, by methods like the methods used in play. Modern authorities sometimes think that a great difference should be made between work and play, and that the student should work at his work and play only at his play.¹⁰ But the pragmatist believes that work and play are so intertwined in the growing boy's attitude that it is perfectly sound to expect him to play at his work and to work at his play. As Dewey puts it:¹¹ "Play is not to be identified with anything which the child externally does. It rather designates his mental attitude in its entirety and in its unity. It is the free play, the interplay, of all the child's powers, thoughts, and physical movements, in embodying, in a satisfying form, his own images and interests." The effort should be part of a natural, biological or social interest, and then nature should be allowed to take its course. If studies are arranged so as to appeal in this way to natural interests, there need be no fear that sufficient effort to overcome natural obstacles will not be put forth freely and joyously, without any appeal to duty and the sterner virtues. Empirical interest and empirical effort go together and should go together. The attempt to put them asunder in the interests of a supposed morality is a mistake in educational theory. As Foster points out,¹² to induce interest, "The teacher must so present the material of instruction that it will offer the student a real problem, one that has a direct and obvious function in his life, and appeals to him as worth while. . . . The teacher must further . . . be interested himself, must build upon existing interests, and must provide for participative activity."

In conclusion, then, we see that the *realist* believes in discipline, in the elimination of interest and effort, so far as these

¹⁰ Cf. H. H. Horne, *The Philosophy of Education*, 1930, pp. 78, 79.

¹¹ *School and Society*, revised edition, 1916, p. 113; cf. *How We Think*, 1933, pp. 212-213.

¹² H. H. Foster, *Principles of Teaching in Secondary Education*, 1921, pp. 11-12, condensed.

are subjective, and in the cultivation of objectivity, of submission of the self to the forces of physical reality. The *idealist* believes in the elimination of discipline in the sense of external control and direction, and in the cultivation of subjective power, in so far as this leads to the development of a transcendental self, completely liberated from the forces, whether within or without, of a merely physical reality. Active interest and effort go along together. The *pragmatist* also discards external discipline and stresses the educational value of interest. But in his case the interest is a strictly empirical, biological and social interest, and is entirely devoid of transcendental backing and significance.

TOPICS FOR DISCUSSION

1. In a class containing pupils of realist, idealist, and pragmatist temperaments, which method—(a) the disciplinary appeal, (b) the appeal to transcendental interest, (c) the appeal to empirical interest—will, on the whole, achieve the most educative results? Consider in relation to Grade IX English, French, Latin, history, and science.
2. The natural, i.e., biological and social interests, to which the pragmatist appeals, are intelligible enough. But is it really possible to "take an interest," as the idealist claims, in any and every subject? Or, if possible, does it really achieve results of educative importance? Discuss, with reference to any of the high school subjects.
3. Do not the newer methods, after all, really lose something which the older methods achieved, in the building up of a strong character? Consider with reference to any of the high school subjects.

EXERCISE

Try to identify the following passages, as distinctively realist, idealist, or pragmatist, in tone:

- a. For the pupil, the Direct Method, which may appear superficially to make his work easy, really makes him willing to do it. There is more real hard work than there is under the indirect system; but it is done with the same zest as his games are played, and leaves him with a consciousness of power. The inimitable fresh-

ness of childhood is kept; he is guided and even restrained, but not driven. (W. H. D. Rouse.)

- b. If we identify ourselves with the real instincts and needs of childhood, and ask only after its fullest assertion and growth, the discipline and information and culture of adult life shall all come in their due season. (Dewey.)
- c. In spite of the element of control that is present in productive invention, the really gifted inventor seems to make play of his work to a large extent. One prolific writer said that he "never worked in his life, only played." The inventor likes to manipulate his materials, and this playfulness has something to do with his originality, by helping to keep him out of the rut. (Woodworth.)

FOR FURTHER READING

Dewey, J., *How We Think*, pp. 55-58, 85-90, 253-255, 284-288.

———, *Democracy and Education*, Chs. X, XV.

Horne, H. H., *Philosophy of Education*, pp. 187-206.

Chapter XV

IMITATION

IT HAS always been observed that the young brought up in one social environment differ from the young brought up in a different social environment, in that each has somehow acquired the language, techniques, and behavior patterns characteristic of its own group. This is true of those animals which go through a period of infancy, and is especially true in the case of man.

For example: Orioles separated from their kind while yet in the egg, and kept in a separate group through life, may be taught a new sequence of notes, a new type of oriole song. Their young acquire the new oriole song rather than the song of other orioles. So too the Eskimo, the Pygmy, and the Parisian Frenchman each acquire the language, techniques, and behavior patterns characteristic of his own social group. The son may exhibit the minutest mannerisms characteristic of his father and elder brothers; the schoolgirl may exhibit the ways of walking and of talking characteristic of her teacher; and the vaudeville artist may exhibit the behavior patterns of prominent political or other worthies.

In modern times, "imitation," i.e., this quasi-instinctive reproduction of the behavior of others, has been acclaimed by sociologists and psychologists as a principle of widespread importance and as an incentive fundamental for educational purposes. And the importance of "imitation" in the development of childhood is accepted without hesitation by those currents in popular thought and feeling which demand that parents and teachers, and all spiritual pastors and masters, shall always be well-dressed and on their best behavior, and that all movie stars shall exhibit, at least upon the screen, all the approved virtues.

But while the value of imitation, in some sense, is universally

acclaimed, the term seems to be used in a number of senses, according as the backgrounds and outlooks of writers differ from one another. In what follows, we shall consider the meaning and educational function of imitation according to realism, to idealism, and to pragmatism.

Realism.—The *realist* understands by imitation the conditioning of the growing self by objective factors in the environment, physical and social. In the environment with which our organisms are in interaction, there are forces which dominate, direct, and determine our development. There are, in the first place, the objective factors resident in the nervous system and in our bodies generally. We all pass through the stages of childhood and adolescence before we reach adult life, and, in passing through, we are subjected to a number of perfectly specific physical influences which largely determine our backgrounds and outlooks. In the second place, there are the objective factors resident in the social environment, the folk-ways and customs characteristic of our immediate social group. In the third place, there are the definitely physical features of our environment. A mountaineer is different from a plainsman, from a longshoreman, and from a sailor, different in background, in outlook, and in behavior patterns generally; and a child brought up in the one group is subjected to physical and social pressures, as well as to the pressures which characterize its own growth as a human being passing through the human life cycle.

It is thus not to be supposed that, where all members of the same group act in the same sort of way, the younger members have acquired their ways of acting simply by copying and mimicking the activities of their elders. It may well be that the common ways of reaction are dictated primarily by the forces of the common environment as these interact with the similar organic structures of the members, both young and old. The sailor's rolling gait, the scholar's stoop, the cavalryman's bowed legs are due not to social mimicry, but to continued or repeated physical pressure of a direct and obvious kind. Intensity, recency, and fre-

quency are the trio of well-known principles invoked to explain this effect.

So, too, with many of the common ways of reaction which are acquired by drill, by social pressure, directing behavior by word of command. Prussian guards acquire the goose step not by mimicking one another, but by being subjected to the forces at the disposal of the drill sergeant. Recruits learn to salute their officers not by imitating the behavior of older soldiers, but as a result of direct instruction in which they interact with the forces of their social environment. These forces are a simple extension of physical force, and are indeed regarded themselves as, in essence, physical.

Similarly, the behavior of schoolboys in the schoolroom and in the playground is a result of social pressure rather than of mimicry. It is not imitation which induces Etonians to wear top hats and Eton jackets. It is not mimicry which makes Christ Hospital boys appear without hats and with mustard-colored stockings. It is probably a more subtle kind of social pressure which develops the Oxford accent, the Harvard indifference, and the western good-fellowship. It is this kind of social pressure which dictates behavior on the turf and in the hunting field, in the drawing-room and at the theater, in the literary or scientific society and at the court ball.

It is not mimicry, but the solid advantage of belonging to the group, which induces conformity to the usages approved by the group. It is not a desire to imitate individuals at all costs, but an expectation of tangible pleasures or profits, which induces people to organize in groups devoted to this or that specific object.

Likewise in the education of the young. It is to win social approval and to avoid social disapproval that the growing child learns to pronounce his words and shape his sentences, whether written or spoken, in this way rather than that. When he reproduces a set pattern, it is not imitation which is the driving force, but social approval or disapproval. What he accepts and seeks to reproduce is the pattern approved by his group, the pattern whose reproduction brings tangible rewards or frees him

from tangible punishments. When he copies a set pattern, whether in writing, in dressing, or in social behavior generally, he does not copy for the sake of copying, but because conformity insures to him the advantages which belong to accepted membership in his group.

There *is*, of course, such a thing as imitation, mimicry for the sake of mimicry, copying for the sake of copying. But it is regarded by realists with disapproval; for it is associated, for the most part, not with the approved quality of intelligence, but with the disapproved quality of lack of intelligence. It is the stupid person, the moron, the idiot, who cannot deviate from the set pattern but reproduces its lines with unfailing mechanical fidelity. It is the mentally immature person who suffers from "echolalia," and repeats the questions addressed to him, rather than answers them, who reiterates the same phrase hour after hour, and reproduces the same action over and over again, without reference to its efficiency or desirability or relevance to the needs of the occasion. The "copy-cat" mind argues a low grade of intelligence, and the school child who reproduces, in season and out of season, every mannerism of his teacher, is seldom found at the top of the class.

In short, from the realist point of view, what is important in education is that the nervous system of the growing child shall interact with the forces of the environment. The realist teacher uses example as well as precept in illustrating how the pupil should act in the laboratory if he is to get the best results from his interaction with the laboratory environment. But he does not want the pupil to mimic or imitate his teacher for the sake of mimicry or imitation, as such. He wants the pupil to be conditioned by the environment, and merely sets him in the way of being so conditioned. The pupil follows the example of his teacher, not by mimicking his teacher's movements or mannerisms, but by so acting as to place his nervous system in the most desirable form of interactivity with the forces of the school environment.

The reason why pupils who have passed many years in the

same school seem to bear a certain family likeness to one another is thus, from the realist standpoint, not because they have mimicked the behavior of their teachers or other leaders, but primarily because their nervous systems have all been subjected to the same social and physical forces. Their personalities have been "formed" upon the same plan; and if the trained and directed interactivity of their school years has been thorough, they will bear through life the stamp of Yale, or Princeton, or Oxford, or whatever the name of their *Alma Mater* may have been.

Idealism.—So much for the position of realism, minimizing the importance of subjective and personal factors and stressing the importance of objective and physical factors in educational development. Let us now consider the position of *idealism*, with its pronounced emphasis upon the value of subjective and personal factors and its tendency to minimize the importance of the merely physical environment.

In relation to "imitation," there are two positions open to idealists. It is possible to accept, in general terms, the theory of imitative reproduction of this or that activity as of value for educational purposes, but to give to imitation a twist which robs it of its mechanical features. This position is most in evidence in the educational literature of idealism. Idealists always insist upon the exercise of personal choice and personal direction. When they deal with imitation they insist, accordingly, that the reproduction of another's activity must not be slavish copying, but must exhibit some characteristic trait in which the individual expresses his own personality. In a drawing lesson, the idealist teacher does not expect his pupils to copy a pattern in such a way that their drawings will be without individuality, practically interchangeable. He sets the pupils a problem and indicates lines of possible solution, leaving to the pupils the choice of which line they will follow, and many subordinate choices as well. The drawings will be, in a sense, copies, for they will follow the main lines indicated by the teacher. But there will be room for so much individual choice and initiative that no two drawings can possibly be in-

terchanged; and each finished result will be as full of individuality as possible.

In the same way with essay writing. An idealist teacher of composition sometimes gives a list of subordinate "headings," not with the idea of stifling individuality but of suggesting possible lines of development, leaving it to the pupil to select and follow whatever path he prefers. So too in the laboratory. The idealist teacher, in demonstrating, does not work out every detail fully. He indicates suitable procedures and leaves it to the pupils to make their choices and to discover their own solutions.

In every case, the emphasis is upon the personal choice and initiative, rather than upon the imitation, as such. It is not by mimicry or by faithful reproduction that the pupil of an idealist teacher reaches his goal. The situation is so arranged by the teacher that mere copying will *not* reach the goal. The pupil is started along the path of individual choice and must continue to make individual choices. If he is to reach the goal at all, he will have to do so in his own way.

Likewise when the essay or drawing, or whatever task it may be, is returned and marked: if the teacher gives the class a specimen solution in the form of a model or pattern answer, the idealist teacher never gives one solution only, but shows where and how alternatives may be selected, and to what results alternative selections lead. In this way there is always room left for individual choice; and this, as a factor in personal development, is insisted upon by the idealist teacher.

Thus we see that, although patterns and models are used, it is not imitation as such, mere slavish copying, which is regarded by idealists as valuable for educational purposes. On the contrary, the idealist emphasis upon individuality and personality takes the whole sting out of imitation or mimicry, and leaves it a little doubtful whether the word, with its misleading associations, should be used by idealists at all. When the idealist speaks of "imitation," he really means "initiative." When he speaks of "mimicry," he really means the exercise of "personal choice."

When he speaks of "reproduction of patterns," he really means the creation of something "new and original."

The second position taken by idealists is in relation to their view that personal development is furthered by personal intercourse and by their desire to win from the psychological tendency toward hero worship whatever value for educational development hero worship may contain.

The youth who admires a teacher or older comrade may admire merely external characteristics, such as physical strength, physical attractiveness, or apparent nonchalance or sophistication. It is possible that he admires him, however, for the apparent possession and exercise of more valuable spiritual qualities, such as courage, self-control, leadership, or intellectual ability. So too in the books he reads, the music he chooses to hear or perform, the dramatic or other entertainments he prefers to visit, a youth may admire the personality of the authors and composers in question.

In all cases of adolescent admiration there is a strong tendency to imitate the person admired, to copy something about him. It may result in wearing a particular kind of necktie or adopting a particular kind of walk and carriage. It may result in training for some kind of athletic activity or intellectual scholarship. Or it may lead to an attempt to realize, in his own person, the qualities of personality attributed to the admired person. In the case of books, it may lead to the attempt to think and write as clearly as Lord Macaulay or John Stuart Mill, or to composing quasi-Shakespearean or Wordsworthian sonnets, or to writing essays in the style of Dr. Johnson or Dean Inge, or dramatic dialogue in the style of Oscar Wilde or Bernard Shaw.

Of these forms of imitation, some are obviously of little educational value, while others may be of tremendous influence in stimulating and developing the powers of youth. In such cases, the appeal is to the originaive and creative impulse, and the youth so stimulated tends to develop a creativity which, once genuinely started, will continue of itself.

That is why, from the idealist standpoint, it is important that teachers, and indeed the older students, should be persons of

character and ability; that they should really be admirable in themselves, and not merely in the imagination of younger pupils. It is too much to expect that older persons should be exactly as they are painted by the imagination of youth, but there should not be too great a gulf between the picture and the reality.

In the same way, the books and subjects studied should contain elements of real greatness. They should not let the trusting neophyte down, but should, on the whole, be really trustworthy. In that intermingling of personalities in which, as the idealist believes, experiences are genuinely shared and educational development is rapid and sure, the qualities and experiences contributed by the teacher and by the literature and science studied should be worth mingling with, and worth sharing. It will not do, from the idealist point of view, to permit the pupils to mingle with any and every kind of person, as in life outside the school. The school should provide a selected environment, sheltered from noxious influences, and providing, in concentrated form, those influences which have proved, both in principle and in detail, inspiring.

There will thus be, from the idealist standpoint, a considerable gap between school life and life in the larger community. The principle accepted as justifying this gap is partly the biological principle of sheltering the immature until they are able to fend for themselves, and partly the principle of *reculer pour mieux sauter*. If left to grow up as best they can in an environment spiritually as well as physically continuous with the world outside, it has often been observed that, with children as with plants and animals, growth becomes warped and stunted, or else runs wild and is without character. But if the school and college years are spent in an educational environment especially adapted to stimulate and call into activity the creative powers, in those few years the pupils absorb backgrounds and outlooks, as well as specialized techniques, whose influence will be far-reaching and will initiate a development far surpassing any development attainable by other means.

The sharing of such experiences and the absorption of such

influences, culminating in the stimulation and development of a genuine principle of creativity in the pupils themselves, is, as the idealist sees it, not a matter of imitation in the sense of external mimicry. There is, however, in such interaction with older persons, an internal copying, a projecting of oneself into the other person's place, and thus experiencing, in imagination, in feeling, and in action, much what the other person is experiencing. The pupil's overt action is the space-time outcome of a spiritual reproduction of the other person's point of view as mingled with his own; and in the enlargement of personality which thus takes place there is genuine copying or imitation. It is not, however, the external or physical mimicking of external or physical movement in space-time, but is the internal or spiritual assimilation of insights and purposes, issuing in new space-time movements and the development of new habits of thought and action.

And finally: from the idealist standpoint, imitation, even this spiritual mingling with other personalities, is never an end in itself. Copying is never for the sake of copying, but always as a means to expanding, broadening and deepening the personality so as to open it to ideal, transcendental influences. John and Mary love each other not less, but more, because they are in love with Love and find, in their love for each other, a deepening of spiritual experience in many directions. It is because John and his fellow students in the laboratory are co-workers in the cause of Truth that the laboratory becomes something more than a glorified kindergarten, and their researches become something more than play. It is because Mary and her fellow music-students hear in one another's playing the authentic note of the ideal that they stimulate one another to ever higher developments.

Thus we see that where the realist understands by imitation the interactivity of nervous system and environment, an external and physical mingling leading to the development of a purely physical individual who is in every respect a portion of the physical environment, the idealist understands by imitation the interactivity of personalities, an internal and spiritual mingling

leading to the development of a spiritually creative individual representing the concentrated forces of the ideal or transcendental environment.

Pragmatism.—Let us now turn to consider the position of the *pragmatist*. He finds himself in agreement with the ideas of realism up to a certain point. He too feels that the resemblance of members of the same group is less a matter of mimicry or imitation and more a matter of interaction with environmental conditions common to the group. But he differs from the realist in three main ways.

In the first place, he dislikes the emphasis upon the *physical* nature of the nervous system of the organism and upon the *physical* nature of the environment. He dislikes the notion that the organism is somehow adjusted to and subjected to an independently existing physical reality: that the child is being physically conditioned and turned into an organic portion of physical reality, so that he is to be explained, in respect of his behavior, completely and without remainder, in terms of physical law applicable to the system as a whole. As the pragmatist sees it, it is the *biological*, and especially the *social* aspects, both of the organism and of the environment, which are the important things for education, for the growth and development of human beings. The physical aspects are of subordinate value.

In the second place, the pragmatist objects to the suggestion that the objective environment, whether physical in some narrow sense or not, is in any sense independent of the organism. From his standpoint, organism and environment are interdependent; the one is not "subjected" to the other, but there is genuine interactivity, the trained organism and the environment meeting each other on almost equal terms.

In the third place, the pragmatist attributes to consciousness a positive function which differentiates his view sharply from realism. From the realist standpoint, organism, individual, and society are all parts of the physical world. They disappear into the physical environment and are lost to sight, as the dewdrop sinks into the shining sea. From the pragmatist point of view,

society, as a tissue of cooperating mind-body dispositions all working at their common task of building up, in interactivity with their environment, an ever more consciously cooperative community, living its own life and refining and making ever more successful its techniques and its social behavior patterns, stands out against a physical world, such as the realists envisage, in the greatest possible contrast.

It is not that the physical world is a background, while the social organism, following its own laws and living its own life, is the foreground of some black-and-white sketch, with the physical world all black and the organism all white. On the contrary, for pragmatism the interaction is so thoroughgoing that all question of backgrounds and foregrounds disappears. But while the note of realism is predominantly physical, with the organism disappearing into its physical environment, the note of pragmatism is predominantly active and social, with the merely physical disappearing into the consciously self-evolving social activity. The social mind is a spreading whirlpool, taking up into its own cooperative motion ever more and more of the inorganic and inanimate factors of the environment, until the whole world is taking part in a vast interplay of gyrations, a cosmic ballet of increasing proportions and accelerating intimacy. The values developed in this social whirl stand out against the one-sided objectivities of a merely realist universe, in extremely sharp contrast.¹

In contrast with idealism, the pragmatist emphasizes two differences. In the first place, he notes a tendency, on the part of idealists, toward excessive individualism. There is a pronounced tendency to stress the idealist development of the individual, proceeding toward the infinite, as a kind of "flight of the alone toward the Alone." There *are* idealists with a definite social program. But the stress upon personal choice and initiative, upon a principle of *individuality* and value, represents, from the pragmatist standpoint, an inadequate grasp of the essentially *social* nature of the self.

In the second place, even where there is recognition of social

¹ However cf. C. W. Morris, *Six Theories of Mind*, 1932, pp. 325-327.

factors by idealists, as when they emphasize the importance of "sharing experiences," there is still the ever-present feature of transcendentalism which distresses the pragmatist. Idealists illustrate the sense in which they use the term "social cooperation" by showing how the members of an orchestra, when they play together, succeed in creating something finer than they could have created individually, a whole to which each contributes his part. But the whole thus created tends, in idealist explanations, to be enjoyed contemplatively. That is to say, it is upon the contemplative enjoyment of the whole, rather than upon the interactivity of communal creation, that the idealist emphasis is placed. And further: it is the transcendental character of this whole—the belief that what emerges as a result of playing together is more than the sum of the parts, something which is prior to the parts and contains and gives the parts its own transcendental meaning—which proves attractive to idealists.

The social values of cooperation thus are not, for the idealist, an end in themselves, but are instrumental toward catching the fleeting vision of the ideal; whereas for the pragmatist they are valuable in their own right, and the end to which they lead is not something transcendental, but something empirical, more of the same thing in fact, namely, continued and improved social cooperation. As an empiricist, interested in active cooperation, in using materials for ends common to the group, and in enjoying such cooperative activity for its own sake without the slightest interest in anything further, such as a supposed vision of the ideal, the pragmatist finds himself in disagreement with the views put forward by idealists.

On the positive side, the pragmatist finds that he has a direct use for imitation. It is a part of education, of learning to play the social game of communal interactivity with the environment, that the pupil should be equipped with the latest and most efficient scientific techniques. It is here that the pragmatist finds a place for direct copying.

The pragmatist pupil imitates, not ends, but means. He has his own ends to serve, namely, the ends connected with making

for himself a place in the social world. But in order to realize those ends, he has to acquire the proper means, i.e., the socially approved techniques. These he acquires, not by being "told," but by doing, by learning to handle and direct tools and machinery to his own ends. He learns to handle tools and machinery partly by the trial-and-error process, but also, and very largely, where the machinery is at all complicated, by imitating others. He handles, turns, pushes, and pulls, as he sees others handle, turn, push, and pull, until he gets the feel of the machinery into his nervous system, and realizes, in a practical way, with his hands as well as with his head, the connection of practical consequences with his interaction with the handles of the machinery.

There are "instruction tests" used by psychologists which illustrate this point. In opening the standard puzzle-box, it is necessary first to pull out lever A, then to pull out lever B, then to turn the box upon the side painted white, then to tackle the combination lock in accordance with definite instructions, and then—the box will open. The instructions have to be followed in this precise sequence, for otherwise certain bolts will continue to keep the box closed. If instructions are given orally, without demonstrating, very few "subjects" will succeed in opening the box when it is handed over to them. But many an instructor has found that, even when he demonstrates how to open the box, by going through the motions himself twice, and opening it before his class, students of considerable intelligence will still fail to open it unless they are permitted to have a similar box and with their own hands make each movement for themselves while the instructions are being given.

In the same way, with "threc-way" locks, when a key is given to an official, with printed instructions for its use, many an official of undoubted intelligence will prove unable to operate such a lock unless he is shown each step of the procedure in practice, and is given an opportunity to try out each one with his own hands, getting the feel of it, and seeing exactly what happens in the case of each movement that he makes.

Direct imitation, then, is found valuable by the pragmatist in

connection with acquiring the techniques approved in modern communities. But its value is restricted by him to acquiring means rather than gaining ends. In the case of ends, not imitation, but personal initiative and choice, have to be exercised.

Let us proceed to compare these three attitudes toward imitation in connection with the concrete work of the schools. The *realist* teacher, faced with a class of wriggling pupils, jostling, misbehaving, and bubbling over with surplus energy, seeks to curb all this mass of "subjectivity" and turn its energies into wholly objective chanel. He has no use for imitation, mimicry, or copying, but wishes his pupils to short-circuit all subjective tendencies and to lay themselves open, without reserve, to objective physical influences, interacting with the materials and instruments supplied in the laboratory and writing down and absorbing the notes dictated to them in the lecture room. By being subjected constantly to these influences, they will come to be a part of the school system and a part of the physical world in deed, word, and thought, without reserving to themselves any inner corner of subjectivity. Their conscious attitude will be an attitude of openness to objective influences, of docility and acceptance of whatever *is*, in every field of experience.

The *idealist* teacher, faced with the same kind of class, wishes its members to interact with ideal influences and to expand or grow in personal power, each in his own way, responding to the call of the ideal by assimilating himself to it, growing into its likeness, and taking it up into himself. He wishes the self of the pupil to interact with the self of the teacher, with the personalities expressed in the literature and science studied, with whatever influences appeal to the inner niusus of the pupils, the impulse which leads them to seek the ideal. He wishes them to withdraw, for a time, from interaction with the physical world around them until, in the inner realm of the spirit, they have explored the ideal sources of power and have found their true selves. They can then, armed with the weapons of the spirit, advance to the conquest of the space-time world, to the progressive sublimation of physical forces, and to the conversion of

these to the purposes of the spirit. Imitation, in the form of hero worship, assimilation of the self to the ideal self via the attempt to reproduce the personal qualities of some admired older person, has a definite place in educational development. But it must never be pursued in an external mechanical way, but always with due regard to originality, to personal choice and initiative.

The *pragmatist* teacher, facing the same type of class, seeks to turn his pupils into true pragmatists, thoroughly at home in our modern industrial democracy. He wishes them to interact with the school equipment in workshop and laboratory which reproduces, in essentials, the equipment they will find in use in the world around them. He wishes them to attack their problems piecemeal, by experimental methods, and by the direct imitation of their teachers in the acquisition of techniques. Their social interaction with their teachers and with one another is progressively intimate, and fits them for the social side of life in the world around them, from which they are not encouraged to withdraw. Their spiritual home is not some *Alma Mater* fenced off from the modern world behind its college walls. Still less is it some dimly envisaged transcendental realm. Rather is it the actual life of everyday interaction with their fellows, combining with them in making the world safe for the progressive development of industrial democracy.

In conclusion, we realize the differences of these schools of thought, not only from one another, but on the basis of common sense with which we began our study of imitation. The phenomenon to be explained is the resemblances between members of the same social group. *Common sense*, and to a certain extent sociology, explains this by reference to "imitation," a natural and quasi-instinctive tendency, observed in monkeys and some children, to reproduce externally the actions of others. *Realism* explains this phenomenon by reference to physical and social pressure exerted upon all members of the group, a similar cause producing similar effects, and rejects the factor of "mimicry." *Idealism* explains the same phenomenon in terms of the interaction of personalities in the common pursuit of the ideal, seek-

ing to establish, each in himself, a transcendental ideal whose structure is the same for all. In this interaction, imitation of spiritual qualities, but not mimicry of external actions, has a certain place. *Pragmatism* ascribes the resemblance between members of the group to common aims and to interaction with common biological and social influences. Imitation, however, in the sense of directed mimicry, has a limited but definite place, namely, in acquiring the details of socially approved techniques.

TOPICS FOR DISCUSSION

1. Is the alleged influence of movie stars on fashions and manners a matter of "imitation" or "social pressure" from the standpoint of (a) realism, (b) idealism, and (c) pragmatism?
2. How far is the value of good leaders in the school to be explained in terms of "imitation," and how far in terms of "social pressure," from the point of view of (a) realism, (b) idealism, and (c) pragmatism?
3. In prose and verse composition, what part is played by "imitation," and what part by "social pressure," according to (a) realism, (b) idealism, and (c) pragmatism?
4. Is there any place at all, in such a subject as mathematics, for "imitation" as a valuable method on the part of the pupil, from the standpoint of (a) realism, (b) idealism, and (c) pragmatism?
5. How far can "hero worship" be regarded as a form of "imitation," from the point of view of (a) realism, (b) idealism, and (c) pragmatism?
6. Is "creative imitation" a contradiction in terms? Consider in relation to prose and verse composition in English, Latin, or French.
7. In "sharing experiences," what differences are there between the idealist and the pragmatist theories? In which theory is there a larger and more definite place for "imitation"?
8. If the pragmatist teacher wishes to turn his pupils into pragmatists, does he not wish them to copy and imitate him, not merely in "means" or "techniques," but also in respect of "ends"?
9. If it is "socially approved" techniques whose acquisition seems important to the pragmatist, is not the advance of the pupil due, after all, to "social pressure" rather than to "imitation"?

FOR FURTHER READING

Dewey, J., *Democracy and Education*, Ch. XII.

Horne, H. H., *The Philosophy of Education*, pp. 175-188.

Royce, J., *Studies of Good and Evil*, Essays VII, VIII.

Tarde, H., *The Laws of Imitation*.

Chapter XVI

METHOD

SO FAR, we have discussed the specific problems of the classroom from the point of view of the pupil, and have asked how far discipline, interest, and imitation act as incentives, inducing him to study the subject matter of the curriculum. We now take the standpoint of the teacher, and inquire by what methods and techniques he induces the pupils to study and evaluates the results of their studying. We begin by considering method.

Famous Methods.—Method, in matters of education, has frequently been a word to conjure with. It has been felt that a teacher, if only he could discover the “right” method, would find himself in possession of a kind of philosopher’s stone, and would be able to teach any and every subject, transmuting the baser elements into pure gold. The *Socratic Method* demonstrated in Plato’s *Meno* and *Theaetetus* is always mentioned *honoris causa*, as the ideal method for the teacher to use on all occasions—provided he has time; but, unfortunately, he never does. The *Cartesian Method*, representing, as then supposed, the extension of mathematical method to non-mathematical subjects, has had a tremendous vogue. In its most modern form, as expounded in the *Principia Mathematica* of Russell and Whitehead, it seems destined to all the glory of a new revival. The *Herbartian Method*, especially as elaborated by his pupils as a method of classroom presentation of any subject whatever in five distinct stages, all passed through in order in each classroom period, has been very influential in teacher-training, and has perhaps never been abandoned in pedagogical theory. The *Deductive Method* and the *Inductive Method* have also had, and still have, their respective advocates who insist that

they are applicable to the presentation of any and every subject matter in the classroom.

At the present day, however, faith in any such universal method is waning. If we look at the textbooks written by the question-and-answer method—which is what the Socratic Method has tended to become as the centuries have rolled on—we find that, whether we consider the catechism, or the aids to history, practical science, social behavior, etc.—in a word, the whole range of subjects included in the once popular *Mangnall's Questions*—we find that it is a very simple pedagogical device, and indicates that its exponents do not really understand either the nature, the purpose, or the limitations of the method once practiced by Socrates. Its genuine practitioners at the present day, whether within or without the classroom, are few.

So too if we look at the vast array of textbooks inspired by the Cartesian ideal, e.g., the series of university textbooks written by J. C. Wolff, or our modern textbooks of French, German, Spanish, etc., we find that their authors do not seem to have understood or appreciated at all what Descartes meant by his rule of “proceeding from the simple to the complex.” He personally equated “simple” with “most general,” and his method is illustrated, not by beginning with such definitions as “point,” “line,” “surface,” etc., but rather with such definitions as “substance,” “God,” “Reality,” and “Eternity.”

As to the advocates of the Deductive or Inductive Method, it is unfortunate that, at the present day, almost all logicians are agreed that deduction and induction are inseparable, and that the application of the one always at the same time involves the application of the other.

There is a further difficulty. It is doubted by classroom teachers whether a “method” can really be separated from the personality of the individual teacher. As Foster says,¹ “Educators are justly in revolt against any attempt to prescribe specific methods or systems of methods according to which the various high school subjects shall be taught. Just as methods vary with teachers and with

¹ H. H. Foster, *Principles of Teaching in Secondary Education*, 1921, p. 5.

classes, so they must vary with subjects." The Pestalozzi Method or the Montessori Method cannot, apparently, be donned, like an academic gown, by everyone who ascends the teacher's rostrum. It has further been pointed out that methods are relative also to subject matter, and indeed to pupils, possibly even to the community, and to the background and outlook of all persons concerned with education. A certain scepticism as to one universally applicable method has thus begun to be felt, and it has been suspected that methods may be matters of practice rather than deductions from strict theory.

Realism.—There are, however, certain typical backgrounds and outlooks which guide practice and can be formulated in theoretical terms. The background and the outlook of *realism* are quite definite, and exert a specific influence upon teaching methods in the classroom and in the preparation of school textbooks. In general, the realist maintains, quite simply, that the proper method of teaching any subject is to abstract from the personality of both teacher and pupils, and let the facts speak for themselves. The teacher is to be an impersonal channel of communication, and teaching consists, really, of those who know telling those who don't know—that, and nothing more, or less. "Telling" adds nothing of the teacher's own. It is the facts themselves which prescribe both principles and details of content and of the order and length of presentation, as well as the emphases. Everything is strictly objective; and the best method is to have no "method" of one's own, but simply to turn oneself into the faithful translator, so that, through the mechanisms of the teacher's organs of expression, the facts themselves become vocal and thus impress themselves upon the auditory, and possibly also the visual, organs of the pupils.

Supposing, now, we inquire as to *how* facts "express themselves." We find, if we listen to a realist teacher in his own classroom, just as we find when we read textbooks written with a realist outlook, that facts seem to have been well trained in realist logic. They are extremely clear and extremely distinct. They are interrelated in external ways which do not detract from

their essential distinctness as the realist proceeds to build up structures which are marvels of precision. They fall into classes which can be defined in terms of classificatory logic, and always obey all the rules of definition and classification. They fall into systems of which each part implies every other part, in a way which not only resembles the neat patterns of mathematics, but completely coincides with certain of those patterns.

We smile when we find Plato saying that "God always creates in geometric patterns"; but when a present-day anatomist gravely assures us that the organs of the human body grow in accordance with exact logarithmic curves, we bow humbly before the "logic of facts." When we read a realist textbook of zoology, we realize that the interrelation of unit cells and more complex tissues is not only what it is, but is so necessarily. The parts and the whole imply one another in ways which are so logically demonstrative that we yield immediate obedience to their authority. They are beautiful, they are true, and they are factual. In fact, they are beautiful and true because they are factual, and—facts are like that. Quite. The language of facts is "as one should say, I am Sir Oracle; and when I ope my lips, let no dog bark!"

It is the same in the classroom. When we come away from a realist lecture in science, with the interimplication of all the clear-and-distinct fact-concepts still impressing their principles and details upon our submissive nervous tissue so that, for years to come, we shall be able to reproduce the content of that lecture as a beautiful whole, with every part in its place, properly related to every other part, and all duly subordinated to the whole, we cannot but admire the logic, as well as the language, of facts. Isn't nature wonderful?

If we ask a realist whether such coincidence between the laws of facts and the laws of realist logic is not a little too much for our credulity, he gravely reassures us. Logic is natural. The laws of thought are not something different from, and independent of, the laws of nature. In fact, the laws of thought are laws for thought, because they are the laws of the things which thought thinks. Two and two do, in point of fact, make four. They can-

not do otherwise. Their logical necessity is, ultimately, a factual necessity. The logical consequences of true premises are themselves true because, ultimately, that is the way things are. The logical methods of arrangement of material for presentation in the classroom thus are not some particular human being's reading of a subjective longing for order and system into what is, perhaps, not in itself so ordered and systematized, but are, strictly, the submission of the individual teacher's mind to the invincible logic of facts. Facts have their laws, and their laws dictate our logic. Nature is like that; and, in obeying logic, both teacher and pupil are conforming to nature and are attaining to genuine objectivity. From the standpoint of realism, the teacher's method is nature's way. As Holt puts it,² "The conscientious scientist . . . knows perfectly well that he 'constructs' nothing; and that, indeed, his prime concern is precisely not to construct anything. It is his purpose to efface his personal will, and if it were possible he would transcend the limitations of his sense organs, so as to be an impartial witness of the events."

One further point. A system is a whole of related parts. Abstractly speaking, you could start with the whole and proceed analytically, making your way down to the parts. You would then treat the parts as nothing in themselves, but something only in relation to the whole of which they are parts. Or, on the other hand, you could start with the parts and treat them as real in themselves. You would then treat their places in the system as external to them, and the whole as somehow a product of the parts, which, while contributing toward the whole, retain somehow their individual independence. The first alternative is the method of idealism. It is the second which is characteristic of realism.

For example, from the point of view of realism, human beings are individuals in their own right. Whether associated with one another or not, first, last, and all the time, they are and remain individuals. The family, clan, professional group, nation, and humanity are aggregates of such individuals. It is true that the

²Holt, *The Concept of Consciousness*, 1914, p. 130.

sense of family unity which emerges under certain conditions is something new, and is incalculable if you start (as realists do) with elements which are considered as non-family units. It is true that the *esprit de corps* which emerges in professional groups under certain conditions is something new, and is incalculable in terms of essentially independent human units. So too with the sense of nationality and the sentiment of humanity. Such emergents have to be accepted, with natural piety, as facts, and have to be explained by referring to the independent individuals whose aggregation is one condition of such emergence, and also by establishing the other conditions.

The realist teacher, whether speaking in the classroom or writing a textbook, thus tends to use the synthetic method of presentation. He starts with the elements, the details, and shows how, under given conditions when certain stages of complexity are reached, certain secondary entities, the wholes, emerge. Given a number of bricks and workmen, plus a blue print, a steam shovel, and a crane or two, and a building of great beauty may emerge. The bricks remain bricks, the workmen remain workmen, the steam shovel remains a steam shovel. But there is something new: the beauty of the aggregation, with its inspiration for the thousands of human beings who see it every year. The bricks in themselves were not beautiful. The workmen in themselves were not particularly beautiful. Even the steam shovel. . . . And yet, there is the beauty: something additional, something new; almost unbelievable, certainly incalculable in terms of its elements—yet undeniably factual.

"Yes," we are gravely informed. "Facts are like that, too. This fact also, strange as it may appear at first sight, must be accepted with natural piety. It must be accepted as in itself factual, and also as in no way inconsistent with the realist logic of facts." It is nature's way. A few cells, each struggling for existence in its own way, meet and subdivide, and subdivide yet further; and before long there emerges something new, an aggregate of cells which writes symphonies or dramas, a Beethoven or a Shakespeare. It's all physiology, or, if you prefer, physics and chemistry. To

quote Holt again,⁸ "It is perfectly clear that life is definable in terms of chemical process. . . . Life is some sort of chemical process, and nothing further."

Idealism.—The *idealist*, on the other hand, bases himself, not so much upon nature as upon experience, not so much upon facts as upon the self. For him, therefore, education represents always the development, from within, of the *nisus* which is the essence of the living and growing self. Classroom teaching, as indeed all teaching, is primarily a meeting of personalities, an intercourse in which the less mature self is stimulated to participate in the experience of the more mature self, to follow his leader and to do and enjoy what his leader does and enjoys. If realist teaching represents the authoritative voice of the logic of facts, demanding unquestioning acquiescence, idealist teaching is rather an invitation to come and share in wider and deeper and more interesting experiences and, in that sharing, to become a broader, and deeper, and more interesting self.

Part of the magic of education, the wonderful way in which a gawky, immature stripling develops in a few years into a self-possessed man who sees his way clearly and follows the gleam unhesitatingly, is due to the acceptance of the invitation to share the riches of another's personality. It is not, as the realist supposes, by the slow process of building up an edifice of knowledge, brick by brick, that the development comes; but by finding a personality whose shared experiences stimulate an accession of spiritual insight.

When we hear a little girl talking to her doll, we hear her expressing the thoughts and attitudes of her own mother talking to her child. When we hear a third-year college student discussing over the telephone with another student the inner meaning of some play of Shakespeare, we ask ourselves in amazement, "Can this be our John, or our Mary?" We soon realize, however, that it is really a reflex of the thoughts of Professor A in intercourse with a reflex of the thoughts of Professor B, not, of course, in the realist sense, as objective, correctly quoted and referred opinions,

⁸ *Ibid.*, p. 158.

but as parts of the growing inner development of our John, or our Mary. So too in the papers written by graduate students and the lectures prepared by our younger professors, we realize that the insight and erudition displayed are due to—shared experiences. But we also realize that to share more mature experiences in this way makes for the development of a deeper self as nothing else does; and that is why idealists believe in selecting as teachers vigorous personalities, and in choosing as textbooks works with a touch of personal greatness about them.

The method of sharing experiences involves the pupil's reaching out after more mature insights. It will not do for the teacher to come down to the pupil's actual level and stay there. If this could be done, teachers would be unnecessary. All that would be needed would be a group of contemporaries, all students, and all at about the same level of development. It is indeed sometimes supposed that our John and our Mary learn more, and develop faster, in social intercourse with one another than with the professors in the classrooms. "Extra-curricular activities" are, in fact, sometimes represented as the real educational influences in our high schools and colleges. But this is, of course, erroneous. It is because our John and our Mary have shared the experiences of their professors that, when they talk with one another, their conversation is really a continued sharing of professorial wisdom. What makes the extra-curricular social intercourse of students the valuable element in education that it is, is thus the more mature wisdom in which all students are sharing in accordance with their capacity to accept the idealist invitation of the classrooms. Otherwise, throughout their lives, the graduates of our universities would not really be distinguishable from contemporaries who had passed through the ordinary social experiences with their fellows but had never been to college.

Students in whom this *nisus*, this reaching out after more mature insights, is strongly developed are able to share in experiences even when there is very little coming to meet them on the part of the professor. An idealist student can sometimes share in the experiences of a realist teacher or a realist textbook, in spite of

the effort of the realist teacher to envelop himself in objectivity. The student can also enter sympathetically into the experiences of teachers whose classrooms he never enters. But while, as is sometimes said, a "good" (i.e., persistent) student will learn and develop, whatever the conditions, the average student needs a helping hand reached out toward him, and the professor has to come part way to meet him.

This meeting of personalities, however, is different from the mere presentation of contents in the classroom. It is a delicate thing, and can hardly be methodized, reduced to formal steps in a deliberately assumed classroom manner. Behind all such classroom methods, personality speaks to personality in the language of selves; and either there is a meeting, or there is no meeting. If there is none, the student feels that he has "nothing to learn" from that teacher, whatever the latter's objective erudition in his own field.

The method of teaching which the idealist uses does not, as a rule, set itself upon a pedestal and call itself a "logic of facts," or anything of the kind. It consists in helping the student who is reaching out after more mature experiences to attain for himself to an insight which is deeper than the insight he possesses at the moment, and to realize that behind all phases of experience there are inviting and attractive depths, all of which may be experienced, and which, when experienced, will continue to lead to still more inviting and attractive insights. The pupil feels that his present stage is elementary and superficial, beside the challenge of these deeper experiences. The present stage is "negated," for the deeper insights, when attained, will transform and transmute it. To attain to the deeper insights he must give up his present standing on *terra firma*, take the plunge, under the stimulation of his guide, and let himself go, whole-heartedly and without reserve. There will be some disappointments; but, on the whole, he will feel that his faith has been justified by the progress which he directly experiences. For the "sharing," namely, the new synthesis of his self and the self of his teacher, is usually experienced as a genuine accession of confidence and insight.

This method has been reduced, by the work of the German idealists from Kant to Hegel, to a technique with three stages: thesis, antithesis, and synthesis. As a technique, it has been given the name of "dialectic" and been elevated to a pedestal of its own. But present-day representatives of all philosophical schools regard this technical methodizing with suspicion; and present-day idealists prefer to leave the method of the teacher, as it was before the days of Fichte and Hegel, the method of attaining deeper insights by personal intercourse.

The classroom method of presentation by which this "sharing," resulting in deeper insight, takes place, is not so much the straight lecture method as the method of discussion which takes full account of diverging points of view. It enters into the subject, not at all objectively, but via some personal view or views, and envisages the subject, not so much as it is "in itself," as from the standpoint of realism, of idealism, of pragmatism, or it may be from some less distinct and less typical point of view. The pupil is thus enabled to see his own formulation expanded, criticized, defended, and at last put into its place in reference to other typical formulations. He chooses his final answer critically, after due comparison with other answers and with definite knowledge of the direction in which he is heading. His view is a growing, developing view, the outcome of his heading in a certain direction. The direction may coincide with that in which his teacher is moving, or it may diverge from it. But in any case he is himself definitely on the move, and does not feel that first solutions are static final things in themselves.

In the same way, if the pupil has, for whatever reason, to learn something by heart, e.g., the prayer-book collects for each Sunday, the idealist teacher does not let him learn them by the realist method, as so much objective material to be driven into his nervous system by the hammer blows of repetition—"intensity, recency, and frequency," as our textbooks used to put it. On the contrary, by discussing the principle in accordance with which they are constructed, he stimulates the pupil to realize for himself that each collect consists of three parts, an address, a petition, and

a conclusion; and that while the content of the petition varies from collect to collect, the address parts are all variants upon the same theme, and so are most of the conclusions. The insight so acquired enables the pupil not only to learn faster and with greater interest, but also to put himself in the position of someone constructing collects—i.e., at the point of view of a creative intelligence. It is in the development of this last attitude that idealist teaching is specially interested. The discussion of literature, of scientific experiments, and even of history, not to mention art in its various branches, is all directed to this end; and the questions and problems assist the pupil to develop a progressively growing creativity.

Everyone understands how the young man, in reading a typical novel or drama, tends to identify himself with the hero and, after many adventures, is at last wedded to the girl of his choice. Such reading is an imaginative expansion of the self, and may or may not stimulate the self to further growth. If the experience ends there, and is followed simply by reading another book or going to see a different play, such vicarious experience may become a mere drug, a substitute for personal development, leaving the self washed out and weakened, drained of the vigor which should be at the service of genuine emotions. It is not this kind of reading in which the idealist is interested. Such vicarious experience is, as a rule, neither reflective nor creative. The reader emerges at the end of the book tired, spent, and with his lust for adventure sated. What the idealist tries to induce the reader to do is not merely to put himself into this or that character, as one more puppet in an objective puppet show, but to put himself into the spirit of the writer, of the creative intelligence which is inspired, but is also reflective and deliberate.

For example: the casual reader of the *Medea* of Euripides tends to identify himself with either Medea or Jason, and to see everything in black and white—the other character all black, and his own *persona* all white. The idealist reader puts himself into *all* the characters. He realizes that Jason is really a second-rate semi-foreigner, whose secret ambition is to see himself, and to have

others see him, as a standard Greek hero. He is a being of the space-time world, swayed wholly by externals. Having landed in Corinth as an exile, he conceives that, as a would-be hero, he has done extraordinarily well, not only for himself, but for Medea and their children, in getting himself recognized by the local king, and in getting himself accepted as a prospective son-in-law of the king. He comes to Medea with gold pieces in his pocket, and quite honestly expects her to congratulate him and to be overjoyed at their good fortune.

The idealist reader similarly realizes that Medea is a great princess in her own right, distinctly higher up on the social scale than Jason's family. She lives almost entirely in an inner world of emotions and ideals. She is something of a witch-woman, conscious of magical powers, but living inside herself, shut off from the space-time world. When she acts in the space-time world, she acts through her husband, her nurse, her children, or some friend; and such acts, being introduced into the space-time world by a denizen of that world, work fairly well on the whole. But from her own standpoint, her own act is the will-to-act. It is a gesture expressing this or that inner *conatus*. She does not really understand its space-time consequences. Jason understands nothing else. Hence, as the idealist reader sees it, Medea has never really understood Jason, nor he her. They speak toward each other on the stage, and each strikes shrewd blows. But as they are inhabiting different worlds, the blows of neither strike home. When Medea proceeds to act directly upon the space-time world, the result is catastrophic. What she regards as a mighty gesture which will set Woman upon her pedestal and punish her faithless husband, he cannot understand at all. Seen, as he necessarily sees it, from the outside, it is un-Greek, unintelligible, barbarous, insane. When they part, her spirit is broken, not at all by the space-time consequences of her act, but by the inner workings of her great gesture. Jason's spirit is broken, not at all by the inner meaning of her gesture, but solely by its space-time consequences.

Understanding this, the idealist reader puts himself in the place of Euripides and studies the persons of the drama, not for their

own sakes, but as expressions of an inner conflict within Euripides himself, a conflict partly solved by its projection into these storied characters of the past. He feels that there is something universal about this conflict, that it corresponds to a conflict within himself between the forces of a simple realism and the call of a perhaps misdirected idealism; and he considers, reflectively and critically, how far the tragic solution of such conflicts is really necessary, and whether a longer stay in the transcendental realm might not have led to a deeper insight, such as is perhaps hinted at in the concluding words⁴ of the play—which so many editors find “merely conventional.”

The idealist teacher prefers to use, as the content of his classroom discussions, books which, like the *Medea*, have something of greatness about them, because it is in the discussion of such works that he is able to draw the student away from the ordinary biological and social reactions which begin and end at the empirical level, to the deeper and more creative insights which lead both teacher and pupil to the transcendental level. Both pass from the merely temporal to the eternal realm which is the source of the values which a creative insight can express in the temporal realm also.

Pragmatism.—The *pragmatist*, like the idealist, rejects the realist view of factual knowledge, transmitted by lectures which speak the language and obey the logic of facts. He too prefers to base himself upon experience. But the experience upon which he bases himself has no room in it for anything transcendental. It is wholly empirical, and refuses to look beyond the here and now, except into the immediate future for which he is planning. The pragmatist has a method which he too, in his own way, grounds upon the nature of experience, of experience considered

Great treasure halls hath Zeus in heaven,
From whence to man strange dooms be given,
Past hope or fear.

And the end men looked for cometh not,
And a path is there where no man thought:
So hath it fallen here.

(Eng. Trans. by G. Murray.)

as reaction to stimulation. It is the method known as "trial and error." In the language of *savants*, it is "the experimental method." The problems which we all have to face are primarily of a biological and social nature. They are solved, as a rule, not by any kind of mature systematic thinking,⁵ but, if at all, *ambulando*, by doing something, starting something in the world of actions and reactions, and seeing whether what happens is, or is not, satisfactory. When the event satisfies, the practical solution is said to "work," and usually we look no further. When we have caught a streetcar going in the right direction, that satisfies our needs for the time being, and we ask no further questions. It is, in fact, only when things go wrong that we ask questions.

As a teaching method, the experimental or trial-and-error method is understood in two senses. In the first place, in relation to the subject matter which forms the content of the teaching. The realist covers the whole subject in a systematic way, in an ordered series of lectures. The pragmatist, as a rule, does no such thing. He prefers to substitute for "the subject" a few outstanding problems, which he then proceeds to investigate by the experimental method. His pupils all join in the investigation, and at the end of the course they have themselves developed the experimental attitude. That is to say, they are qualified to concentrate upon the piecemeal solution of problems within that particular field of study. They do not "know the subject" as realist pupils would; but they are "trained investigators," with a genuine zest for research, and with that mastery over technique which comes only to those whose grasp of the technique has been acquired by doing rather than by listening, by finding out for themselves rather than by memorizing lecture notes.

The difference is particularly obvious in the case of the sciences. In the lecture rooms of a large university there may be from four to seven hundred, and more, who listen to the systematic lectures in physics, chemistry, botany, zoology, etc. They see this or that demonstration by the professor and his assistants. They understand the diagrams, all simplified to enable them to understand.

⁵ Cf. Dewey, *How We Think*, 1933, pp. 84-85.

They memorize lists of names and formulae, and actually grasp a good many of the more systematic relations of the parts of the science in question.

In the laboratories of the same university, if laboratory work is optional and not compulsory, there may be thirty-six students in botany, about forty in zoology, and perhaps fifty in experimental psychology. The numbers in physics and chemistry will be greater, but still only a fraction of those who attend the lecture course. But, as any serious student who has ever taken a laboratory course knows well, there is no comparison between the grasp of the scientific attitude acquired by the lecture student and the grasp acquired by the laboratory student. The one can repeat, perhaps, the *verba magistri*, but the other is on his way to becoming a *magister* himself. It is characteristic of the pragmatist to think highly of laboratory work, and to neglect systematic lecture courses. Seminars in which laboratory problems and the technique of devising, carrying out, and reporting upon experiments are subjected to critical discussion, are also well attended. But anything historical, systematic, general, and abstract is utterly neglected.

While obvious in the sciences, the difference is also to be observed in the languages. Everyone who has endeavored to master a number of foreign languages will have come across some one of the "parallel grammar series" of such languages which are written with a realist regard for system. The grammar is reduced to rules, is arranged in order of progressive complexity, and there are carefully graduated exercises intended to drive home the point of each rule and also to assist in memorizing the numerous exceptions. Who does not know that "All monosyllabic nouns in German are masculine—but . . ." and then follows a list of sixty which are feminine and eighty which are neuter, all of which are learned by heart? As contrasted with the systematic method, the "Berlitz Method," with its relatively unsystematic conversations about this and that, seems loose and uncertain.

But it is a fact that, whereas by the realist method you learn the system, with its rules and exceptions, it will be a long time

before you learn to speak the language with any ease. Even two years' study may prove an almost total loss. By the trial-and-error method, however, in which you learn by doing, you find yourself speaking the language from the very beginning. You may never, perhaps, learn the "system," but you can be sure of reading and writing, as well as speaking, the language intelligibly within a couple of months. Writers on pragmatist education have elevated this "learning by doing" to the rank of a universal method. Thus we read:⁶

"Learning by doing" is a slogan that might almost be offered as a general description of the way in which many teachers are trying to effect this adjustment. The hardest lesson a child has to learn is a practical one . . . this problem of adjustment. . . . A practical method naturally suggests itself as the easiest and best way of solving this problem. . . . A child . . . learns . . . not by reading books or listening to explanations . . . but by burning himself and feeding himself; that is, by doing things. Therefore, says the modern teacher, he ought to do things in school. . . . The hands, the eyes, the ears, in fact the whole body, become sources of information, while teacher and textbooks become respectively the starter and the tester. . . . Every method is used to have the children do all the work, not to keep all the responsibility and initiative in the hands of the teacher. The pupils are encouraged . . . to think out for themselves each problem as it comes up. . . .

It is the same with the various literary studies and with the social sciences. Attendance upon lectures may give "a bird's-eye view of the whole." But who does not know that "survey courses" tend to be somewhat superficial, at least in their effect upon the pupils? Writing essays on this point and that, on the contrary, corresponds precisely with the solution of problems in the laboratory, in helping one to acquire a grasp of literary and scientific method. "Writing maketh an exact man," says Bacon. That is perhaps hardly true of our modern students and journalists. But writing does give one an insight into creative work in the field

⁶ John and Evelyn Dewey, *Schools of Tomorrow*, pp. 70-102, condensed.

of letters which is not to be acquired by any "listen-and-let-me-tell-you" method.

Such is the experimental method upon which the pragmatist relies. Its efficiency in training investigators and writers, men who will do something and not merely read about what others have done, is beyond doubt. But it is used in a different way in relation to the pragmatist's classroom teaching itself. As a teacher, the pragmatist is prepared to use a trial-and-error method of meeting his students. He knows that he is going to use experiments and discussions, rather than lectures. He is going to make his students do the work themselves, and not just memorize what he tells them. But as to how, in detail, he is going to set about this, he is not sure. His method of handling his own students will vary from year to year and from class to class. As he would himself say, the precise classroom method he uses will be a function of the total situation, including students and professor as well as equipment and the particular experiment.

To some of his students, the pragmatist teacher will seem to be extemporizing, making it up as he goes along. And students of that sort would probably prefer that he should come in with well-worn lecture notes which have done duty for thirty years and more, and should dictate from page two hundred and sixty to page two hundred and seventy, without a question asked or any sound or movement permitted to interfere with the lock-step proceeding of four hundred pens across four hundred sheets of paper, from start to finish of the lecture period.

But in discussing a problem with student A, the pragmatist professor will light up many a difficulty felt by students B, C, and D; and such students will appreciate the mental alertness which can enter into the detail of experimental difficulties with such complete understanding and sympathy with the student's efforts to reach a satisfactory solution. "Yes," says the first *realist* professor, sitting down by student A in the laboratory, "your section illustrates the principle quite well. Your drawing might, however, be improved in such-and-such ways." "Yes," says the second *realist* professor, with undisguised indifference, "there

are a number of things you have missed, *a, b, c, . . .* You must be a little more careful to draw exactly what you have before you, whether you understand it or not." As Foster points out:⁷ "The college professor, a specialist in a particular field of science, thinks of his science primarily as a science, rather than as a means for developing personality. Newly graduated college students carry over to the high school this point of view, absorbed from their professors in the university." The *pragmatist* professor sits down and says not one word as to whether the section and drawing are "right" or "wrong." "Look at this," he says, pointing to something which is in neither lectures nor textbook, and yet is there in the specimen, perhaps unobserved by student A. "What should you say that was? What should you say was its structure and function?" The student, after first pointing out that it has not been discussed in the lectures and textbook, makes an effort to find a satisfactory answer, and discovers that he is entering, with the professor, into a discussion of something entirely unknown, upon which the professor is himself, perhaps, working. The other students around, who are permitted to enter into the discussion, will feel equally stimulated to proceed further with their researches. To them botany, or whatever they are studying, will be a live issue and not a textbook "subject," "dead and stuffed, fit only for a place on the museum or library shelves."

In conclusion, then, the *realist* professes to have no method of his own. His objective lecturing, with its clear-cut distinctions, its elements and their relations, is nature's way. It represents the authority of facts, speaking their own language and using their own logic. He can, of course, employ the technique of discussion and experimentation; but, as *he* employs such techniques, their aim is not to develop a transcendental self or to influence the course of events, but primarily to induce the student to remove all subjective barriers and to throw his nervous system wide open to the objective influence of physical fact.

The *idealist*, primarily by the method of discussion, but also by

⁷ *Principles of Teaching in Secondary Education*. 1921. p. 6

lectures and experiments, shares his experiences with his pupils, inviting them to seek, in his company, progressively deeper insights, and thus to develop their own personalities to the utmost. Although the changing of the personality which grows into transcendental selfhood has its empirical side too, his ultimate aim is not empirical, but transcendental.

The *pragmatist*, primarily by doing, by starting a train of consequences in the space-time world and interacting with them until their direction is satisfactory to him, i.e., by the method of experimental trial and error, develops in his pupils the piecemeal, experimental, scientific techniques which lead to success in the solution of individual problems as they occur. He turns out, not men who know, and not men who contemplate, but men who do things. What they do is empirical, is of biological and social significance, and plays its part in influencing the course of events in the actual world.

TOPICS FOR DISCUSSION

1. Discuss the classroom methods suitable for teaching Grade X English, according to the chief philosophical schools.
2. Discuss similarly the classroom methods suitable for teaching Grade XI History.
3. Discuss similarly the classroom methods suitable for teaching Grade XI Science.
4. Discuss similarly the methods suitable for Grade XI Mathematics.
5. How far does the teacher's personal bias in favor of one school of thought interfere with his successful use of the methods approved by other schools? Consider in reference to Grade XI English, History, or Science.
6. How far does the pupil's natural bias in favor of realism (idealism or pragmatism) interfere with the efforts of the teacher to apply the methods favored by one of the other philosophical schools? Consider in reference to Grade XI French (German), History, or Science.
7. Discuss the comparative value of realist, idealist, and pragmatist methods as applied, not to teaching, but to studying, on the part

of the pupil, (a) in the classroom, and (b) at home. Consider in relation to the upper grades in language, history, or science.

FOR FURTHER READING

Dewey, J., *Democracy and Education*, Ch. XIII.

———, *How We Think*, pp. 78-85, Chs. XI, XVII-XVIII.

Horne, H. H., *Philosophy of Education*, pp. 8-10, 222-227, 306-311.

Chapter XVII

EXAMINATIONS

Present-day Dissatisfaction and Confusion.—There are few topics of educational method which have been so much discussed in recent times as the nature, function, and conduct of examinations. Nearly everyone is dissatisfied with nearly every examination system which has been devised; and yet no one wishes to do away with examinations altogether. The chief reason for the dissatisfaction is that all teachers know of instances where pupils, of whose ability and industry there is no doubt, do not do as well in examinations—apparently of *any* type—as pupils of whose ability and industry there is considerable doubt. Educationists feel challenged, when such cases occur, to devise something better as a measure of ability and achievement. It ought to be possible, they think, to devise some way of measuring performance of school tasks which will correspond more closely to the ability of the pupil than some of the methods now in use. But the new-style examinations which appeal to some educationists are denounced or laughed at by others; and, in practice, the objectives which some examiners set before themselves would seem totally unacceptable to others. There seems to be more heat than light in current discussion, and the differences seem to go deeper than the exponents of this or that method are entirely aware of. It may well be that when the differences go as deep as the differences between realists, idealists, and pragmatists, we are really faced with alternatives which are mutually exclusive. It may be that we come to the parting of the ways and must make a definite choice and take a definite stand. *Some* alternatives cannot, perhaps, be combined into a single working system, not only in theory, but not even in practice.

Realism.—The *realist* examiner is entirely clear as to his own objectives. What he is looking for is objective achievement on the part of the students; ability to repeat objective information and to demonstrate a reasonable grasp of the objective relations involved in any systematic subject of study. What he expects the examiner to do is to devise some objective measure of such objective achievement. What arouses his impatience is any catering to subjective outlooks and standards, whether on the part of the pupil or on the part of the teacher or examiner.

With this objective clearly before them, realist-minded educationists have first demonstrated the unreliability of the individual teacher's "judgment." Examination papers of the "essay type" have been submitted to a number of teachers, all supposedly competent to examine the papers in question; and what happens is in line with what every member of a committee of examiners has learned to expect. That is to say, Teacher A will grade three papers as "first," "second," and "third," while Teacher B will grade the same three papers in the reverse order, and Teacher C will think them all "second class." Disagreement among examiners is so well known that it is quite usual to strike an average and let that go as the mark of "the committee," although possibly every member of the committee may personally feel that it is "wrong" and measures, not the achievement of the candidates so much as the *modus vivendi* developed by the examiners, their way of getting along with their colleagues. A group of papers has even been submitted, after a decent interval, to the self-same examiner; and it is found that he himself varies in his "judgment," and reverses the order of a number of them, even to the extent of placing in the "third class" a paper which he had previously placed in the "first," and *vice versa*. Examiners, in a word, are merely human, and can, by such experiments, rather easily be shown to be fallible. Such demonstrations have been attempted in most of the school subjects, including not only history and literature, where differences of opinion might well be expected, but also the sciences and even mathematics, in which

those whose acquaintance with such subjects is not intimate might well suppose only agreement would be possible.

"Judgment" having been shown to be subjective and fallible, realists proceed to inquire whether it is not possible to devise a kind of question and also a kind of answer about which there can be no subjective variations of opinion, and, among questions and answers of this new type, to find some which really measure the information and grasp of principle possessed by the pupil. The kind of question which is immediately eliminated is "Discuss . . . this or that dictum, or theory," because an invitation to "discuss," without anything further, is a direct appeal to the pupil's subjectivity. It is as bad as the old type of question, "*Write a note on . . . this or that,*" and for the same reason. It escapes any kind of objective control and any kind of objective measurement. There are many kinds of question, all of this type, and all, therefore, rigidly excluded by the realist: questions like "Do you think . . . so-and-so, and, if so, why?" or ". . . state which alternative *preferred, giving reasons for your choice,*" or "*Explain and criticize . . . ,*" or "*Paraphrase in your own words . . . ,*" or "*How would you . . . handle such-and-such a situation, and why?*"

The kind of question about which no two opinions are possible is found, according to realists, in two fields only: the field of fact and the field of relations. In the field of objective fact, a vast number of such questions lies open to the examiner's discretion. He makes out a list of the facts he regards as important for pupils to know, and devises simple questions to see whether they do or do not know these facts. The questions have to be simple so as to avoid ambiguity and to avoid giving a general intelligence test, rather than a specific knowledge test. But they may take any one of several forms, e.g., What color does blue litmus paper turn when you dip it in an acid? This could be asked in many other ways. You could give the statement, "Blue litmus paper turns red when dipped in acid," or "Blue litmus paper turns yellow when dipped in acid," and ask, "Is this true or false?" Or you could give three or four statements, such as,

"Blue litmus paper turns red when . . .," "Blue litmus paper turns yellow when . . .," "Blue litmus paper turns green when . . .," and ask to have the correct one pointed out. Similarly, if it is considered important for pupils to know that "William the Conqueror won the Battle of Hastings in 1066," you could frame such questions as, "William won the Battle of Hastings," "Harold won the Battle of Hastings," "William Rufus won the Battle of Hastings," and ask to have the correct statement underlined. You could devise similar alternatives as to the battle that William won and the date at which it was won, or you could make it a matter of saying whether a given statement is true or false.

In the field of relations, it is easy to frame simple and unambiguous alternatives in connection with relations of magnitude, of space, and of time. It is a little harder to frame questions of the type known as analogies ("Banana is to orange as skin is to . . . ?"); at least, it takes a great deal longer to frame significant questions of this type in physics or chemistry, and in literature and history, questions as to whose meaning and answer there could be no difference of opinion. But in any subject taught in our schools, it is now possible for a teacher to make out a list of the relations which seem to him important, and then to devise true-false questions or multiple-type questions to test the pupil's grasp of those relations. In these two fields then, viz., the field of matters of fact, and the field of objective relations, it is possible to devise questions whose meaning and answer can be in no doubt or dispute in so far as examiners are concerned. The student's answer will be either "right" or "wrong," and can be graded accordingly.

This brings us to the question of answers. If students are left to answer questions in any way they like, especially by the "essay type" of answer, it is often very difficult for the examiner to decide just how much objective information they really have. A competent manipulator of language can not only "pad" his answer so that it looks like more than it is, but he may have acquired the knack of inventing original and vigorous phrases

which suggest his possession of all sorts of information, including the information required, but without actually committing himself to an unambiguous response. Old parliamentarians excel¹ at this sort of thing, and so do some young students. Two examiners reading the same essay-type answer to a question involving objective knowledge of the information type, may honestly disagree as to how it should be marked. One examiner looks for unambiguous evidence that the student really knows points 1, 2, 3, 4, 5, . . . , while the other may think that the student's answer could not possibly be as systematic as it is if he did not thoroughly understand and know all the details of the system, including the few actually asked for. Because of this difficulty, realists in the new-style examinations exclude essays as ambiguous and narrow down the response to a sign such as + or —, or to a simple underlining of this or that phrase, or to putting a tick against this or that statement. The answer is then susceptible of one interpretation and only one, and can be graded accordingly.

Having thus decided upon the kind of questions which can be asked and the kind of answer which can be given if an objective measure of objective achievement is to be reached, the realist educator goes further. Hitherto, we have apparently allowed the realist teacher to decide *what* facts and *what* relations a pupil should know, and to measure his achievement in relation to precisely those facts and those relations. But while *all* teachers without exception regard themselves as competent to decide that question, the realist educator treats their self-confidence as just another indication of their almost ineradicable subjectivity. What a teacher thinks important may, he insists, have no relation to the information or insight into principle possessed by the student. He therefore tries to rule out the teacher's subjectivity in two ways.

In the first place, he has the list of facts and relations considered important by Teacher A submitted to the judgment of Teachers B, C, D, . . . etc., believing what in fact often occurs, that the "subjectivity" of the individual members of a committee will be "canceled out" when they are all brought together. Majority

decision will tend to eliminate the pet prejudices of individual teachers; and, as the poet puts it, "What remains will be so pure, 'twill bear Th' examination of the most severe."

But even this does not satisfy the realist educator. He has duly noted that even committees of expert examiners sometimes publish questions which *any* student could answer, or perhaps which *no* student could answer. A question which has no "diagnostic value," i.e., which does not serve to separate the sheep from the goats, those who "pass" from those who "fail," is a question wasted. It is obviously one which ought not to be asked in an efficient examination system, whether the teachers think it important that students should know the answer, or not. The only way to decide what questions have or have not "diagnostic value" is to try them out on both "good" and "poor" students in order to test—not the students, but—the questions. Large numbers of such questions are prepared, and only those which survive such testing are eventually used in the business of officially examining students in respect of their grasp of information and insight into principle. Only the standardized answers to such standardized questions are used as objective measures of student achievement.

In these ways, then, the realist educator devises tests which rule out all subjectivity on the part of pupils and examiners alike. It takes time to acquire a large number of suitably standardized questions of the approved types. But once they have been acquired and reduced to card index form, *any* one can pick out a few cards at random and thus set a paper of questions; and, further, if each card indicates the proper answer, *any* one can mark the answers as "right" or "wrong." Here as elsewhere, standardization makes for simplicity. The realist administrator can look forward hopefully to the day when an amplifying machine will deliver the standardized lectures and the merest assistant will mark the standardized examinations. Such tests are undoubtedly efficient. They combine the maximum of objective achievement with the minimum of expense.

Idealism.—The *idealist* is equally clear as to his objective,

namely, the maximal development of subjective power. He looks for examination questions which will stimulate the mind of the student to the utmost, so that he will bring all the resources of his personality to bear and will put his whole self into the answers. As personalities differ enormously from one another, the kind of question for which the idealist examiner is looking is the direct antithesis of what satisfies the realist examiner. The realist wants questions which can be answered correctly in only one way. The idealist wants questions which no two students will answer in precisely the same way, and which will challenge the full powers of each student. Questions which make everything depend upon a youth's Yes or a maiden's No, requests to respond by underlining or by marking with some simple sign a formula which seems correct, do not interest an idealist. They make no appeal to the student to exert his full powers. Either he knows the answer or he does not know. In neither case does he get much of a thrill out of indicating his knowledge or his ignorance.

The kind of question which interests an idealist is, accordingly, precisely the kind of question which the realist rejects; namely, the request to "discuss," to "explain and criticize," the request which gives him an opportunity to show what he can do, to exhibit not merely specific knowledge, but something which seems to the idealist far more important, i.e., general intelligence, the full powers of his mind. The kind of response which interests the idealist is, again, precisely the response which the realist rejects: viz., the essay. An essay provides opportunities for clear and vigorous expression, for depth of insight, for cumulative development, and, above all, for originality. So, far from selecting those questions in an examination paper to which he already knows the answers, the idealist student prefers to attempt questions which contain for him the fascination and the challenge of the unknown. Factual, informative questions and answers seem to him inartistic, providing no scope for individuality. It is the critical questions which call for ingenuity and genuine ability, and are really educative.

An essay which is the expression of subjectivity—how is such

a thing to be marked? Are there any principles to which an examiner can appeal, or is it purely a matter of individuality with him, too, purely subjective? The idealist examiner admits, of course, that it requires judgment and insight to mark an essay. *Non cuius homini*. Yet, since when, he asks, have judgment and insight gone out of fashion among examiners? The principles to which he appeals are, as of course they must be, the principles of mind itself. These are comprehensiveness, clearness, vigor, unity, depth, and originality.

If the essayist brings a wide range of experiences to bear upon his problem; if his starting point, method, and conclusion stand out against his general background; if the evidence brought forward all points definitely to only one possible result; if what he writes hangs together so that the premises look forward to the conclusion and the conclusion looks backward to the premises, implying a single wave of insight back of them all; if his thinking pushes through to a standpoint and outlook plainly discovered at first hand—then the essay, whatever its subject matter, is to be marked highly. For to be able to exhibit all these qualities of mind in solving a novel problem in the brief space of time permitted in examination periods implies, in the judgment of all idealist examiners, the possession of high-grade mentality.

One further point. The realist marks papers as "right" or "wrong," i.e., "right" in so far as they correspond and agree with the standard established by the facts, and "wrong" in so far as they fail to agree with that standard. This is in accordance with the realist criterion of truth as "correspondence with fact." The idealist does not care in the least about the objective correspondence or non-correspondence with alleged fact. He does not care whether the candidates agree with him, their examiner, or not. His interest is solely in the qualities of mind which the essayists display. If coherence, depth, and originality are clearly present, the mark is high; if coherence and depth are present, but the candidate is plainly repeating the *verba magistri*—lecture notes or textbook or what not—so that the qualities exhibited belong not to the student but to the teacher, the mark is low. This is in accord-

ance with the idealist criterion of truth as "coherence," i.e., systematic unity based upon a single wave of insight.

These differences between realist and idealist cut very deep in the practice as well as in the theory of education. Where scholarships, medals, and other rewards are allotted on the result of examination, it makes a great difference whether the majority of examiners are of the realist or the idealist type. It is seldom that a large committee of examiners is found which does not contain individuals of both types; and where examiners disagree on principles and methods of examining, they tend also to disagree on results. In an institution run on realist lines, the mark 100%, which is sometimes given in the laboratory sciences which have, of course, pretensions to exactitude, but is more rare in the literary studies, means fidelity to fact. That is to say, it means that the student has a wonderful memory and an aptitude for saying what his professors believe to be fact. He has studied his notes and textbook, and can reproduce them without error. It is also usually the case that he can succeed in personally carrying through original experiments which illustrate the accepted principles. But there is always the danger that "correspondence with fact" may mean, in practice, agreement with the beliefs of the professor. And against this danger, realism provides only inadequate safeguards. Docility, rather than originality, is easily erected into the chief virtue, with industry a close second.

In an institution run on idealist lines, a student with qualities which lead to the mark of 100% given by realist examiners, would undoubtedly receive a very high mark. But the mark would be for his ability rather than for his factual knowledge as such; and it is easy to conceive of a case where a student with less knowledge, but greater mental powers—in the opinion of idealists—would receive the higher mark. Such differences in examiners' committees do actually occur; and the device of averaging the marks of disagreeing examiners does not always seem to secure perfect justice. It should, perhaps, be added that students with the qualities of mind which secure a mark of 100%, whether given by realists or by idealists, are likely to be successful in anything

they undertake. But the fact remains that if there is only one award to be made, and the occasion is important, such disagreements among examiners may make a great difference to the careers of two candidates.

Pragmatism.—The *pragmatist* first notes the difference in objectives on the part of the realist and the idealist. As he sees it, the realist is looking for a reliable and convenient measure of objective achievement. When he examines, he is not trying to educate, but merely to measure the objective results achieved by other methods. The idealist examiner, however, is continuing the pupil's education, and is continuing it by his usual method, namely, by setting essay subjects which demand discussion and stimulate the pupil's maximal response. This is not so much a way of measuring the student's achievement which has resulted from other methods of teaching, as of giving more stimulation of the same sort. The chief differences are two: in an examination the pupil has to cover an unusually wide field, and his time is rigidly limited. That is to say, he has to write four or more brief essays dealing with the different parts of his subject, instead of writing a single essay dealing with only one part of his subject; and the usual two- or three-hour period of examination limits severely the amount of time he can spend in genuine reflection. As some students write better under examination conditions, and others under the usual conditions of essay writing, the pragmatist, while not denying that such examinations provide a valuable stimulus, feels that, if taken as a measure of student achievement, examinations of this type are not altogether reliable.

For his own part, the pragmatist, like the realist, is content to do his educating in class time, and to use the examination period in order to measure, as conveniently as may be, the general progress made by the student in such-and-such a course. He is under no illusion as to the "objective validity" of the Yes-No answers in the new-style examinations. It is obvious to him that all the Yes answers by the same student, or the Yes answers to a single question by different students, do not express equivalent degrees of objective knowledge, and that to mark each such

answer "1" is sufficiently grotesque. But it is also obvious to him that this method correlates highly with other methods of rating student achievement, and it is convenient and easy to administer in practice. If this simple method results in ranking students in substantially the same order as the most conscientious efforts of expert examiners, why not leave education to the teaching periods and, for measuring achievement, fall back upon the new-style yardstick?

So far the pragmatist agrees in practice, although not in theory, with the examination methods proposed by the realist educator. But he does not attach the same importance to examinations as the realist does. As he sees it, the achievement of a student is really a question of being able to solve successfully the problems set him in the laboratory or its equivalent. But these are all specific problems, each dealt with by itself, by devising and applying an appropriate technique. When they are solved they are solved, and no further "examination" should be necessary. The value of examinations is, accordingly, not so much for the student as a student, as for the institution as compared with other institutions, or for the graduate when he presents his institutional certificates to prospective employers in the community. They are an institutional convenience and a community convenience, and, as such, they are accepted by the pragmatist. As an educationist, however, he tends to devalue them and to allow them to count for only a fraction of the total credit assigned to the course. Term work, in some institutions, counts for one-tenth of the total credit. The pragmatist would like to see this altered so that term work would in most courses count for at least two-thirds of the total credit—as is the case today in some institutions—and in certain specified laboratory courses would count for the total credit.

As a result of the differences of opinion between examiners with realist, idealist, and pragmatist backgrounds and outlooks, and of their thorough discussion, there is at the present time a pronounced tendency to compromise in favor of the so-called "comprehensive" examination. Here the field is very wide indeed, covering, where possible, not merely the content of this or that

specific "course," but the whole of a "subject"; e.g., a single paper can cover "logic, psychology, and metaphysics," or the whole of "ancient history," the whole of "Greek literature," the whole of "physics" or "biology," etc. The questions asked are general, and require, in order to answer them, knowledge of the different parts of a wide field. They tend to be of the critical, rather than of the merely factual, type, and call for a considerable amount of reflection. As Bagley says:¹ "The virtue of the examination lies in its power to force strenuous mental effort to the task of organizing a large body of facts and principles into a coherent system. . . . Examination questions should be large and comprehensive, so formulated that they will bring out and exercise, not the memory for details, but the capacity to grasp large masses of knowledge, and weld the separate facts and principles into systematic unities."

Examinations of this type plainly give a slight advantage to literary, as opposed to laboratory, students, and to the idealist, rather than to the realist or pragmatist, type of mentality.

The comprehensive examination is still very much *sub judice*. Like most compromises, it really satisfies no one completely. Beneath its smooth surface, the essential differences between realist, idealist, and pragmatist examiners are only temporarily concealed. And where the differences go so deep, it is doubtful, in the end, whether any such compromise can continue to endure.

TOPICS FOR DISCUSSION

1. Discuss the comparative value of the types of examination believed in by the three philosophical schools, in relation to Grade XI English.
2. Discuss similarly in relation to Grade XI History.
3. Discuss similarly in relation to Grade XI Science.
4. Discuss similarly in relation to Geometry.
5. Are there any advantages in combining a one-hour "objective" examination paper with a two-hour "essay-type" examination

¹ W. C. Bagley, *The Educative Process*, 1913, p. 334.

- paper? Consider with reference to high school history, or literature, or science.
6. How far is it true that "the veriest assistant can grade the new-style examination"?
 7. In the text, it is the weaker sort of essay-type examiner who has been contrasted with the best sort of objective examiner. What are the errors into which the weaker kind of objective examiner readily falls? Are the resulting papers better or worse, for measuring knowledge and ability, than the weaker kind of essay-type papers?
 8. "Objective examinations may be useful in the more elementary reaches of a subject; but the higher you go—up to the fourth year of university work, for example—the less valuable they become." Discuss the truth of this statement (a) in relation to English, (b) in relation to Latin or French, (c) in relation to history, (d) in relation to science, (e) in relation to mathematics, and (f) in relation to philosophy.
 9. Discuss the comparative value of term marks and examination marks as a measure of ability and achievement in relation to Grade XI French or German, English, history, and science.

FOR FURTHER READING

Galbraith, W., *Examinations*.

Hartog, P. J., and Rhodes, E. C., *An Examination of Examinations*.

Miller, G. F., *Objective Tests in High School Subjects*.

Chapter XVIII

IGNORANCE

WE HAVE now completed our study of the principles of educational philosophy as applied to the concrete problems of curriculum, incentives, and methods. It remains to discuss the two extremes of the educational field, namely, ignorance and liberal education, before we finally draw together the threads of our inquiries and summarize the conclusions we have reached. We proceed, then, to discuss the nature and function of ignorance.

Ignorance Ingrained in Life.—Ignorance, from the standpoint of the teacher in service, is the enemy. From the time of Socrates to the present day, it has been regarded as the lie in the soul, the root of all evil, of vice and crime no less than of intellectual futility and error. The educator's chief function is, apparently, to face, expose, and destroy it wherever met with. He is a member of the battalion of light, sworn to wage unceasing warfare upon the forces of darkness, up hill and down dale, in season and out of season.

From the point of view of the community, the battle seems to be a comparatively simple affair. Enlist large numbers of qualified recruits, train and equip them with up-to-date techniques, station them in their fortresses and outposts under proved leaders, and ignorance simply melts away. With a good system of schools, it should be possible, within a generation or two, to close the jails, reduce the police force, disband all military and naval units, and to settle down, in the light of universal knowledge, to living happily ever after.

Such is the naïve optimism of the common citizen who has listened, perhaps, too readily to commencement addresses, justifications of educational expenditures, and the other outpourings

of the prophets of education. For him, democracy, modern civilization, everything which makes life seem worth living, rests upon education, upon the work of the schools, substituting knowledge for ignorance. But from the standpoint of the teacher in service, the matter is not so simple. There is ignorance and ignorance. There is the ignorance of the new-born child, who simply does not know. This is a purely negative affair, of no great importance in itself, and of no great significance in the interests of the world. It is important, of course, that such ignorance should not persist, but should be exchanged for knowledge as expeditiously as may be; and in principle it looks as though, with adequate equipment, the thing could be done.

But in practice the child's ignorance is exchanged, as we all know, for whatever beliefs the adults who surround him think fit to inculcate; and the difference between these beliefs and genuine knowledge indicates the first of the difficulties the teacher has to face. If only there were no parents! The child, on entering school, is not a receptive waxen tablet, all ready for the teacher to write upon. His mind is not a sheet of white paper devoid of all characters. The home, the street, and the community have already set their stamp firmly upon it. These factors all complicate immensely the situation for the teacher. And when we add the stages of the life cycle through which the child, as a growing organism, is passing rapidly, we realize that the teacher has to deal with many ignorances. There are the ignorances of parents, playmates, and friends: racial and social, as well as individual, ignorances. They are not simple absences of knowledge, but positive, active forces which make for continuing and growing ignorance. From the teacher's standpoint, then, the child is only to a slight extent educable by the teacher; and the optimistic hopes of the common citizen, that the teacher will do the whole work of the community, fade swiftly into the remote distance. Before anything much can be done in the warfare to which the teacher is called, it is necessary to analyze and discover clearly the nature, the numbers, and the power of the enemy.

Realism.—Let us examine, then, what ignorance means. And first, from the point of view of the *realist*. As he sees the matter, the conditions of knowledge are the complete interactivity of an organism with a well-developed nervous system and brain, on the one hand, and the environment, physical and social, on the other. Ignorance occurs when anything interferes with that complete interactivity, whether on the side of the organism or on that of the environment.

On the side of the organism, for instance, there are always the weaknesses inherent in the nervous system itself. Our sense organs, as physical mechanisms, are inadequate to their task and are subject to a number of misleading distortions. The connections between sense organ and brain, and between brain and muscle or gland, are also subject to definite limitations and weaknesses. So is the brain itself, and so are the various bodily tissues whose health or sickness may react upon the nerve cells. We thus do not meet physical reality upon equal terms. In the interactivity of organism and environment, the nervous system is seldom at its best. And when it is not at its best, a large margin of distortion and ignorance is unescapable.

And there are further sources of ignorance, less direct but more insidious and pervasive. Our emotions and instinctive desires mingle with the functions of perception and memory, and even infect our reasoning processes; and there is an intellectual tendency to unify and systematize, to express itself in ideas that are clear and distinct, which leads inevitably to oversimplification and an extreme directness. We contrast and enhance. We project our subjective desires, both emotional and intellectual, into the objective environment; and the result, as we see when we try to narrate truthfully the course of some dream, is a general haze of ignorance and distortion in which we represent straight things as crooked, and crooked things as straight. Where sense leaves off and imagination, with its rationalizations and wish-fulfillments, begins, who can say? We interact, indeed, with the world; but between what we imagine we are doing, and what we are in very truth bringing about, there is a vast uncharted gulf.

What makes navigation peculiarly difficult is the fact that the buoys used to mark channels and shoals are designated in accordance with no settled principle. We express ourselves in language. But language was invented, not for scientific, but for practical purposes. The self-same words are used, at different times, in different senses. Even as we use them, we slip backward and forward across the centuries, and find ourselves lingering among the wrecks of long-discarded theories, without quite knowing how or why we have shifted ground. Other people's words, other people's thoughts, other people's theories. We live in a world of them, and it is hard to find our way out, out to the simple realities which lie back of human experiences. Our world is thus a world of ignorance, our own and other people's. Narrowness, distortion, and willful falsity combine to make it the thing that it is.

Ignorance, then, as the realist sees it, is due to the interference of physical, social, and logical influences which prevent the simple interactivity of organism and environment. There is, however, from the realist standpoint, a way out. It is the way followed by physical science, the way of careful measurement with instruments of precision, and of careful formulation in terms of exact, mathematical techniques. The world is not as the common man sees it, through his personal and social haze of ignorance. It is rather as the mathematical physicist sees it: a system of calculations and formulae, demonstrable, in part, to the controlled observation of the laboratory experimentalist. Those of us who are not Russells, Whiteheads, and Einsteins necessarily continue to live in a world which is largely subjective illusion and ignorance. And even these thinkers are, in part, creatures of their age and its ignorance. But it is to the spread of mathematical logic and of scientific experimentation that the realist looks for the gradual rolling back, as far as may be, of the clouds of human ignorance.

Idealism.—The *idealist* cannot accept the realist's account of ignorance, either as approximately complete or as really going to the heart of the subject. As the idealist sees the matter, it would be perfectly possible to overcome all the handicaps enu-

merated by the realist as interfering with the interactivity of organism and environment, and still remain fundamentally ignorant. Interactivity in which the boundaries between organism and environment disappear, so that the organism is entirely permeable to physical law, and its "knowledge" is all objective, all utterly and completely physical, never deviating into subjectivity, is, from the idealist standpoint, compatible with the most abysmal ignorance which the idealist can conceive. To have the lie in your own soul, i.e., to think you have significant knowledge when you are really in a state of deplorable ignorance, is the last and worst infirmity of mind.

Physics should never be mistaken for metaphysics. Physics represents sensory reactions standardized by mathematical and logical techniques; and this standardization is useful for empirical purposes, such as running trains on schedule time or constructing skyscrapers, airplanes, and radios. But it should never be regarded as furnishing us with Truth with a capital T. To suppose that it does is to exhibit the most noxious kind of ignorance.

Consider the selecting, unifying, and systematizing activities which standardize and reduce to order the sensory experiences associated with the interactivity of organism and environment. These activities are guided, not by the blind impulsion of physical force as such, but by spiritual ideals. Mathematics and logic are not physical realities, existing in *rerum natura*. They are creations of the mind, used by it as handmaids in its self-chosen task of understanding and transmuting into science the sensory, muscular, and glandular responses of our nervous tissues. These responses are shot through with impulse and emotion, permeated with subjectivity; and to ignore this, and to concentrate upon the resulting concepts as though they existed in their own right, as physical objects in a physically objective world—instead of as mind-made objects in a mind-made world—is evidence, not of knowledge, but of ignorance.

As the idealist sees it, the wiser method is to recognize to the full the part played by mind, and to attempt to understand its meaning and function in knowledge. To know the self and its

ideals of truth, beauty, and goodness is the essential thing. Not to know these is to miss the essence and to know, in truth, nothing. As to the details of physical phenomena in relation to one another in the mind-made world of the physical scientist, these lose nothing of their practical importance by being seen in their correct perspective, as parts of the mind's world. And they gain immensely in truth-value by being envisaged from the metaphysical, rather than from the exclusively physical point of view.

The chief value of ignorance, from the idealist standpoint, is that, when recognized as what it is, it acts as a stimulus, awakening the reflective powers of the self to fuller exercise. To know that we do not know, and to know that the deficiency is to be remedied by a fuller understanding of the nature and function of the knowing self, is the first step toward that reflective self-development and growth in metaphysical insight which are, according to the idealist, so important. Knowledge of the self is central in knowledge, and vitalizes the otherwise narrow and one-sided satisfaction in the impersonal tabulation of objective phenomena.

Considered as objective phenomena and nothing more—as the realist considers them—the objects of knowledge are merely “brute facts,” accepted, but not understood. They are accepted as related to one another, and also as related to the organic nervous system, in so far as that organism is regarded as itself a member of the objective world, just another phenomenon. But these relations are all external, established in observation and by experiment in the space-time world, but without any inner significance: factual but meaningless. Why they should fit together into a single pattern—and, indeed, why anyone should want to fit them together—remains, from the realist standpoint, an impenetrable mystery. It is like a cipher to which there is no key. You can tabulate what you take to be its elements. You can catalogue their relations to one another, and to your own organism too, if you wish. But if you ask why you should do this and what you hope to accomplish by so doing, apart from the interest in the chase itself, you can give no answer. For to refer

the matter to the "inscrutable will of the Creator" or to the "researches of metaphysicians" is, from the realist point of view, a polite euphemism, a confession of continuing ignorance.

From the idealist standpoint, then, the recognition of ignorance is the beginning of wisdom. The idealist proceeds by asking why there should be a unity in the world-picture constructed by scientists. He comes to the conclusion that the unity belongs, not to the objective elements considered *per se*, but to the knowing mind. It is we who unify phenomena, or, rather, try to unify them. Our attempts are only partly successful, and unity remains an ideal, a transcendental demand rather than an empirically accomplished fact. We project our own selves, with our demands for unity, hither and thither, in every direction in which we look for knowledge. "Synthesis is mine," says the mind, "and I will unify." The order and system which we seem to see in nature are thus our own order and our own system. That is why the self is satisfied when nature is reduced to "laws." We feel at home in such a world because it is our world, created by projecting the vitalizing power and unifying techniques of our own minds. Walk down a suburban street and look at the gardens. On this side you see neglect: dirt, weeds, a broken gate. On that side you see trimly kept lawns and flower gardens. On the one side, brute facts; on the other, organization. On the one, ignorance, absence of mind; on the other, knowledge, presence of mind.

The quest for unity thus leads from object to subject, from the actual and empirical to the ideal and transcendental, from the world to the mind. And the mind which is the source of the unity in the world around us is the ideal mind, the reflectively creative spirit which creates, first, the self on which it reflects, together with its ideals of order and system, and then the far-flung network of unifying concepts with which it captures the phenomena of the senses and emotions around us and converts them to its own purposes, turning them into a reflex of the spirit and bestowing upon them a significance and a destiny which are not merely biological and social, but transcendental and spiritual. To

know and understand this is to banish forever the specter of ignorance, and to set in its place, wisdom. The discovery of details still remains the task of science, but of a science purified of metaphysical pretensions, a science which has been given its own charter and is set free to pursue its own pathway of distinctions and empirical discoveries.

Pragmatism.—The *pragmatist* is a little puzzled by the conception of ignorance. It is a term which seems to get its meaning only in relation to the concept of knowledge or of wisdom. As the pragmatist does not believe in any such thing as “knowledge” or “wisdom,” he finds it difficult to believe in “ignorance,” either. The term seems to him to have significance only in realist and idealist ways of looking at things, ways of contemplating, which the pragmatist rejects in favor of acting. His own problems, biological and social, he endeavors to solve, when they occur, by the process of trying out various lines of action. If they work, the pragmatist succeeds. If they do not work, he fails. Where others speak of “knowledge” as power, he prefers to speak of “the fruitful use of techniques.” Where others speak of “ignorance,” he prefers to speak of “practical inefficiency.” “Socratic ignorance,” for instance—that is to say, the idealist’s way of feeling that he has enough wisdom (i.e., understanding of the self and its ideals) to believe that he does not know the detailed truths investigated by physical scientists—is in his eyes the recognition of failure in a self-appointed task. It is a social, rather than a biological, failure. As the pragmatist sees it, Socrates’ life is one long succession of such failures, culminating in his condemnation by his own community.

If the pragmatist is asked whether, after all, he is not himself ignorant of many principles and details of systematic physics, he denounces the question as unfair. It is like asking a man engaged in the detailed activities of salmon-fishing or shoe-manufacturing, how far he is familiar with Homeric scholarship, or with the history of badminton, or with the technique of winch-handling on the America’s Cup yachts. Such questions are beside the point. If the pragmatist is engaged upon some question

which requires for its solution the application of some physicist's or mathematician's techniques, he will endeavor to utilize such techniques. But if he is engaged upon some other kind of problem, to success or failure in which these particular techniques are irrelevant, he is, of course, indifferent to them. He uses libraries and reference books, laboratories and industrial workshops, only in so far as he needs them for specific purposes. When he ceases to need them, he ceases to use them. But he would not think of his use or non-use in terms of "knowledge" and "ignorance," in terms of a quasi-physical storehouse of knowledges whose shelves are either well filled or empty, administered by some librarian or curator who brings, on demand, this or that instrument or book.

As to the distortions which interfere with the processes of perceiving, remembering, and reasoning, and prevent the adequate use of this or that instrument, these are not regarded by the pragmatist as due to something labeled "ignorance." They are rather pathological occurrences, each requiring specific explanation—something like the "fallacies" which logicians name and classify, and psychologists try to account for, when they take place. Among these specific diseases of the social organism are to be reckoned idealism and realism: widespread sources of pervasive error, consisting in acceptance of this or that systematic outlook which, from the pragmatist standpoint, is futile in principle. These and other outworn philosophies constitute the genuine "lie in the soul." They are a cancer of the mind which destroys all otherwise sound tissues and prevents its unfortunate victim from living a normal biological and social existence, such as is suited to the mechanisms and action-tendencies of human beings.

In connection with the work of the schools, the *realist* would remove ignorance by teaching systematic physical science. The *idealist* would remove what *he* regards as ignorance by stimulating the development of a consciousness of the transcendental self and of its origin and mission. The *pragmatist* regards both of these "scholastic" pursuits as an expensive investment in "ignorance," i.e., in the useless erudition or *docta ignorantia* of which

Chapter XIX

LIBERAL EDUCATION

AT THE present day, opinion as to the nature and value of "liberal" education is unclear and confused by cross-currents of feeling. A "liberal" education is usually contrasted with a "vocational" or "professional" education, and is further, in practice, regarded as connected, for historical reasons, with the study of *literae humaniores*, the poets, orators, and historians of ancient Greece and Rome. It is felt to be "cultural" but somehow useless in our modern world, except for ministers of religion and teachers of the classical languages. In so far as it is useful, it is vocational rather than liberal, and in so far as it is liberal, it is ornamental rather than useful. Students of subjects other than the classical poets and orators are inclined to question the supposedly "liberal" character of ancient grammar and literature, both as ancient and as grammar. They are at the same time in doubt as to whether anything peculiarly "liberal" is needed in our modern world, particularly if it is something different from the most up-to-date science, physical, biological, and social. There is a general feeling, based upon experience, that any competent speaker at an educational conference can make out a case for regarding his own studies as "liberal" and all others as relatively "illiberal"; and it has been noted that such speeches succeed in arousing the admiration and assent of all who have come prepared to accept the speaker's point of view. Others may admire the enthusiasm or the carefully selected and carefully modulated phraseology, but, as far as the content is concerned, they feel that, in listening, they have been wasting time.

In spite of this confusion, "liberal" is still something of a word to conjure with, and the representatives of no school are content

to leave it to some other school, as the unchallenged possession of that school. Findlay says,¹ "These distinctions [of specialism and liberal education] are not confined to the arguments of vocational versus liberal training; there is even more jealousy between rival schools of pedagogics as regards the elements to be included in a 'sound liberal education.'" Let us proceed to consider the claims of realists, of idealists, and of pragmatists, to the exclusive possession of a truly "liberating" kind of education.

Realism.—The *realist* believes that the study of physical science can be, and should be, a "liberal" study. It liberates the student from excessive preoccupation with biological and social interests in the world around him, from a tendency to accept the dogmatic rules handed down by unenlightened social tradition, from a tendency to dissipate his abilities in reading and imitating the subjective performances of poets and orators, and from wallowing in a welter of refined but essentially biological emotions. It frees him so that he can devote his abilities to the true life of reason, studying and forming himself upon the objective reality of scientifically ascertained physical law. The thrill of discovery, the serenity of full, willing acceptance of the truly real world revealed by physical science are his, and his alone. An education which liberates him from everyday backgrounds and outlooks and gives him a freely chosen place in the work of the real, physically real, world is indeed a liberal education. As contrasted with the realist's interactivity with reality, the idealist's life is all mist and moonshine, and the pragmatist's efforts at empirical successes in the biological and social world are pitiful and trumpery. The realist neither withdraws from the world nor plunges into its most superficial froth. He becomes, through scientific education, a genuine part of that exclusively physical interactivity in which reality consists, and thus learns that the pathway to reality is the way to freedom. As Bertrand Russell puts it:²

In the life of the instinctive man . . . there is something feverish

¹ J. I. Findlay, *The Foundations of Education*, 1928, Vol. I, p. 139.

² *The Problems of Philosophy*, pp. 244-250, selected and condensed.

and confined, in comparison with which the philosophic life is calm and free. . . . In contemplation, we start from the not-Self, and through its greatness the boundaries of Self are enlarged; through the infinity of the universe, the mind which contemplates it achieves some share in infinity. . . . Everything, in contemplation, that is personal or private, distorts the object, and hence impairs the union which the intellect seeks. The free intellect will see as God might see, calmly, dispassionately. . . . Contemplation enlarges not only the objects of our thoughts, but also the objects of our actions and affections: it makes us citizens of the universe. In this citizenship of the universe consists man's true freedom, and his liberation from the thralldom of narrow hopes and fears. . . . Union with the universe constitutes the mind's highest good.

Idealism.—The *idealist* believes that it does not matter what one studies as long as one studies deeply and develops the personality of the genuine devotee of truth, the personality which looks beyond the immediate, the temporal, and the transient, to the ultimate, the eternal, and the permanent, values of experience. If our interests are shallow, bound up with the here and now, with exclusively biological and social activities, our life remains upon the surface of experience; and no matter what we study, we shall never penetrate to the real depths. The real enemy is shallowness, frivolity, superficiality.

From the idealist standpoint, then, it is not from biological and social interests, as such, that the student needs to be liberated. It is not from acceptance of the traditional conventions, or from reading and enjoying, with all the fullness of his subjectivity, the classical or modern poets and orators, or from expressing his feelings in verse or in refined words and activities, that he needs to be set free. The life of reason is not, according to the idealist theory, something so different from life that all empirical interests have to be negated simply and absolutely. What has to be negated is shallowness and superficiality. It is from excessive preoccupation *at the surface level* of experience, whatever the subject of study, that we require to be set free so that we can plunge into the refreshing depths. There is no

magic about science as such, or about poetry as such, or about any other human activity as such, if the student does not throw himself into it whole-heartedly. If, however, he does project himself without reserve, and mingle with the values for personality which such subjects contain, he will find science magical, he will find poetry magical, he will find every activity in which the human self expresses itself, full of magical quality. The athlete who sings as he takes his shower, the mother who sings as she rocks her baby, the student reading his Virgil or finishing a "good" essay, all take joy in something which does not "let them down," something which beckons to further vistas, to further depths of experience. They hear the call of spirit to spirit, "Come, follow, follow, follow . . .," and if they follow, they find that *all* pathways lead, in the end, to the same spiritual goal. *All* pathways are ways of freedom.

From the idealist standpoint, *all* education which proceeds by spiritual interactivity, by the mingling of personalities so as to stimulate to further personal development, to further insight into the laws and ideals which can make experience a finer and more beautiful thing, is "liberal" education. The life of the mind *is* freedom, and everything which challenges and stimulates and assists the life of the mind leads us toward freedom. This does not mean that the idealist withdraws himself from the empirical into the transcendental realm, but that, by insight into the transcendental realm and its ideal principle, he devotes himself to realizing his ideals, to making his actual experiences transcendental as well as empirical. He throws his transcendental self into the experiences of every day, realizes their maximal values, and permeates them with the spirit of idealism. What to realists look like geese, look to him like potential swans; and by faith in the resources of the spirit, and by resolutely mingling his personality with theirs, he succeeds in so stimulating them to self-development that some of them actually do become swans. He is a dreamer of dreams. But his dreams, in the end, come true.

Pragmatism.—The *pragmatist* duly notes that both realist and

idealist believe that the young should be liberated from excessive preoccupation with "the froth of experience," i.e., from taking seriously the biological and social features of their immediate environment. The realist is a dreamer who wants to substitute preoccupation with physical science for biological and social activity, and the idealist wishes to transform our natural environment into a kind of "kingdom of ends," a dwelling-place for transcendental personalities. To the pragmatist it is obvious that both of these, namely, (1) the physical science of the realist and (2) the transcendental speculation of the idealist, are cities of refuge to which particularly refined temperaments can flee from the crudities of full-blooded existence. They are imaginary substitutes for the human struggles and successes and failure of actual men and women, a kind of Epicurean heaven, set apart from the world, in some place "where falls not rain, nor hail, nor any snow, nor ever wind blows loudly," where a few choice spirits drink pink tea and read literary or scientific papers to one another. The pragmatist thus completely reverses the picture, and regards the physical and transcendental worlds as the make-believe and unreal substitutes, and the actual, everyday wrestlings with human problems as the genuine realities.

From the pragmatist standpoint, then, a "liberal" education liberates from everything which hinders the neophyte from becoming a good pragmatist. It frees the pupil, not only from preoccupation with realist physics and idealist metaphysics, but also from the local narrownesses incident to social groups as such. Excessive preoccupation with the needs of earning a living, or with the detailed processes of the industrial machine, is every bit as narrowing as a too ready acceptance of tribal shibboleths and an uncritical adherence to the tenets of the local boosters' club. The pragmatist educator avoids all such extremes. In his school, he is concerned to preserve the open-mindedness and curiosity of youth, and to keep alive the experimental, trial-and-error attitude which tackles its problems in detail and never faces the world as a single, all-embracing, systematic totality. That way impotence lies, and failure, and contemplative acceptance of

whatever *is*. The pragmatist way, however, is the way of planned action, of selective concentration, and of piecemeal improvement.

The human organism, thus equipped by being trained in modern techniques, and liberated from the crushing weight of dead system and of transcendental superiority to everything empirical, is free to pursue, in cooperation with its fellows, the life purposes natural to such organisms. Dewey shows³ how occupation with cotton and woolen fibers

. . . supplies the child with a genuine motive; it gives him experience at first hand; it brings him into contact with realities. In addition, it is liberalized throughout by translation into its historic and social values and scientific equivalencies. It ceases to be a pleasant occupation merely and becomes more and more a medium, an instrument, an organ of understanding, and is thereby transformed. . . . We must conceive manual studies in their social significance, as types of the processes by which society keeps itself going, as agencies for bringing home to the child some of the primal necessities of community life . . . in short, as instrumentalities through which the school itself shall be made a genuine form of active community life, instead of a place set apart in which to learn lessons.

Life, liberty, and the pursuit of an empirical happiness are ideals whole-heartedly accepted by the pragmatist educator, and it is definitely maintained by Dewey that pragmatism has a right to claim that it represents the genuine national philosophy of America and the New World.⁴ It has its roots deep in the history of pioneer strugglings, and its fine flower bears upon its many-colored petals the slogan of democracy, "Opportunity and participation for all!"

It should be noted that, at the present time, the pioneer spirit has grown somewhat more sophisticated, and that the struggle for existence, while as sturdy as ever, has become a struggle between groups rather than between individuals as such. The individual has learned the value of organization and has, in almost

³ John Dewey, *The School and Society*, pp. 11, 20, slightly condensed.

⁴ John Dewey, "A Recovery of Philosophy," in *Creative Intelligence*, 1917, pp. 67-69.

all cases, sought to achieve his ends, still fundamentally individualist, by joining a group through whose concentrated power and activity he hopes to achieve those ends more efficiently. The dominant groups at present are nation-wide organizations, and "economic nationalism" is the latest form which sturdy individualism has assumed. Within the group the appeal is to loyalty, to cooperation, and to all the more humane motives, not, however, for their own sake, but for the sake of more efficient competition as between groups as wholes. The dominant motive is group-competitive, with each group fighting for what it conceives to be the interest of the group. Armed with the latest techniques, solving its problems one at a time, and steadily refusing to consider the good of "the whole," the modern spirit is, not without reason, claimed by pragmatism as its own.

Pragmatism claims to unite "empirical idealism" with "concrete realism." That is to say, within the group, the members act as empirical idealists, aiming at what they understand to be for the good of the group. But as between groups, they act as concrete realists, each seeking for his own group the lion's share of whatever social surplus is available for sharing. And in both cases, when acting as members of a group and when acting in competition with other groups, each member is seeking essentially and fundamentally for what he takes to be his own good. The "liberal" education of pragmatism thus clears the atmosphere of confusing and misleading loyalties and concentrates attention upon the bare essentials. Under our apparent culture, frontier existence and the frontier spirit still persist. The frontier has shifted its position a little. But, once we are liberated from realist and idealist illusions, we are free to concentrate again, with modern techniques, upon the same old biological and social objectives as our ancestors had back into the remotest times. Pragmatism accepts life as it is, as it has been, and as it will be, and arms us with the outlook, as well as the techniques, which makes for empirical success in tackling each problem as it comes along.

We have here, then, three very different accounts of what

constitutes a "liberal" education. The realist liberates us from what the pragmatist accepts, and the pragmatist liberates us from the illusions of the physicist, which the realist accepts. The idealist invites us to be supermen or minor deities, superior both to the low-grade idealism of those who see in physical reality the be-all and end-all of existence, and to the triumphant disillusionment and negation of the higher self which characterize the pragmatist. The pragmatist, on the other hand, urges us to give up this purely imaginary superiority and to concentrate on the concrete and actual problems of the moment and the locality; to come down to earth and to be ourselves; to act like men and women, and not like children who lead a protected, dreamy, and unreal existence. He calls upon us to face the actual biological and social problems of life, and to cease to regard secondary things as primary, and primary things as secondary.

Thus we see that we have to choose among these three competing philosophies. For each, a "liberal" education is what fits us for the kind of life approved by that particular philosophy, freeing us from the ideals accepted by the other kinds of philosophy. There is no such thing as a "liberal" education in general, which would free us from *all* ideals without exception, and would leave us like floating adjectives, attached to no substantives. What frees us from A is positive adherence to B or C, and what frees us from B and C is positive adherence to A. The choice is among substantive positions, and the issue is vital.

TOPICS FOR DISCUSSION

1. Is not anything which is "educative" in the broadest sense also "liberal," as liberating us from ignorance and its consequences?
2. What is it that makes a vocational education regarded as not liberal? Is it the subject matter, the way it is taught, or the fact that fees are in prospect? Consider from the standpoint of realism, of idealism, and of pragmatism.
3. What is it that makes a technical education regarded as not liberal? Is it the subject matter, or the way it is taught, or are there social reasons?

4. Did not pre-War German university education aim precisely at freeing students from *all* loyalties (except loyalty to university education), and at leaving them like floating adjectives attached to no substantives? Did not British university education in India succeed in doing much the same thing?
5. Is not a "liberal" education essentially negative, something which liberates us from the fetters of this or that kind of ignorance, but leaves us with a freedom as to whose use and direction we are left to ourselves? Consider from the standpoints of (a) realism, (b) idealism, and (c) pragmatism, with reference to the social sciences.
6. Has the ideal of a "liberal" education anything to do with the philosophy of political liberalism, or is it entirely independent of political philosophies?

FOR FURTHER READING

Martin, E. D., *The Meaning of a Liberal Education*, Chs. I, IV, VII, XIV.

Chapter XX

SOCIAL EDUCATION—FINALE

No study of education is complete which fails to consider the transmission, to the rising generation, of the social and biosocial traditions and norms of the group. In the past, speaking very generally, we can say that this transmission was felt to be a function of education in the wider, rather than in the narrower, sense of the term. It had no close connection with formal schooling. In fact, it was believed that biosocial and social traditions are normally picked up quite informally, being absorbed naturally in the environment provided by the family, the church, the neighborhood, and by clubs or occupational associations. At the present day, however, education in the narrower sense is reaching out from its center, the school, to occupy, so far as possible along with the family, this wider field of social education. As we read in a highly authoritative publication:¹

Now it seems as if the educational world as a whole has recently become fully aware of the fact that people live in families and that the family is a potent educational force, and is drawing the conclusion that it is wise for the school to regard all of life as education and to use the family for what it is worth. We conclude that family living is an area of vital concern to the school. With the shift of emphasis in elementary and general secondary education programs from academic subject matter to the experiences of living, a new recognition of the present and potential values of family experience has come to both.

In older and long established communities, especially where the extreme urbanization characteristic of the machine age has not

¹ Joseph K. Folsom, *Youth, Family, and Education*, 1941, pp. 87-88, condensed. (This part of the book is a reprint of an article in *Parent Education*, April, 1938.)

developed very far, it is still largely believed and taught that the proper place for social education is primarily the home, or home and church in combination. In such cases, traditional norms of family and church life are still inculcated, and fairly definite direction is still given in social matters to the forward-moving steps of youth. The rising generation is still urged to keep to the straight and narrow way, and to follow without change the social and biosocial conventions which have become a part of the traditional attitude toward the problems of life.

In such communities a certain place of importance is assigned also to the school, in so far as the school is a private school, a kind of extension of the home, or of home and church in combination. Such schools as Groton, like Eton, Harrow, and Rugby, tend to become institutions for fostering and transmitting the social background and outlook characteristic of certain family groups. Many such schools are known as "church schools," and have a background stretching many centuries into the past. Children take kindly to such institutions, as they do also to sport clubs and summer camps (often under similar church auspices) in which the ideals characteristic of their own family groups provide the same kind of background and offer guidance and direction to their developing outlook upon life. If such institutions have also a long tradition of preparing their pupils for distinguished public service, parents also are eager for the advantages which come from such associations. In such cases the families as well as the children assimilate readily the norms, shibboleths, and behavior-patterns of such schools. What is referred to as "the old school tie" is a powerful influence in much of present-day social education.

A negative characteristic of traditionalism is its opposition to novelty, change, and a present which seems to involve a break with the past. The kind of education preferred by the group of old families with traditional church affiliations is thus strongly opposed to the nonsectarian, public, or state school developed by and for *hoi polloi* of our industrialized modern world. Such

families observe that, as the American Youth Commission of 1937 states,²

Industrial urban civilization has removed work and play from the home, has destroyed the traditional forms of cooperation between parents and children and between husband and wife, and has led to greatly increased family disorganization, which takes such forms as divorce, separation, neglect, chronic discord, and lack of discipline.

They believe, however, that the modern state schools are altogether too external, too coldly rational and efficient to provide the intimate, sheltered, private-family type of environment in which alone (as they think) the tender plant of youth can grow into a social maturity which possesses grace, beauty, and charm. For the perfect biosocial and social development of the rising generation, there must be a fostering tenderness, an understanding which is bred in the bone, a love and insight like that of the most enlightened parent; and these characteristics, they are sure, are found only in the private school developed under church leadership, never in the state or public school.

In the newer communities of our present-day mechanized and urbanized civilization, where family ties are less vital and penetrating, and occupational and civic interests and activities seem to have crowded out the church altogether, a very great change has come about.³ Presumably there will always be some place for the old-fashioned, more autocratic type of family, and for the private school with church affiliations. But by and large, in our sprawling modern world, the city has simply streamed into and over and through the old-fashioned type of home; and in our larger cities that institution has so changed as to be scarcely recognizable.⁴ There is still such a thing as a family—if you like to call it that. The family of the twentieth century (we are told)

² Quoted, in slightly condensed form, in Folsom, *op. cit.*, p. 228.

³ Cf. W. Goodsell, *A History of the Family as a Social and Educational Institution*, 1915, Chs. XIII–XIV, also pp. 113, 148, 456. There is complete agreement in the literature as to the nature of these changes, and indeed as to their effects.

⁴ Cf. *Education for Home and Family*, Part I, 1931.

. . . is markedly unstable; it would seem that in some instances it has paid for the independence of its members the costly price of its very existence or its existence in a changed and incomplete form. The social literature of the age abounds in references to this instability of the modern family organization and foretells its extinction, at least in its present form. With the break up of the economic, religious and legal bonds that once made of the monogamic family a strong unit, we are assured that looser and less permanent forms of association will in all probability take its place.⁵

The question "Whither the family?" is difficult to answer because we are not sure that there is any "the family" any more. The pattern of family life is diverging in several directions at once, giving us at least several types, if they may be so called.⁶

Biology still functions, in a way. Children are still born into the world. But they are born in a hospital rather than in a home, and nutrition experts take the place around the cradle once assigned to Mother. As for Father, he just keeps out of the way (if he can) and pays the bills.⁷ The home, in a word, has not only shrunk physically to a very few rooms, perhaps a very small apartment in a large block; it has become little more than a suite-number, indicating a place whose inmates sometimes eat together and sometimes sleep together, but not often. It is a place from which they emerge: to play, to work, to shop, to seek entertainment, to do the thousand and one things that make life interesting and worthwhile. "The city family no longer *dwells*. It is *quartered*, and its members long for the street, the automobile, the hotel lobbies, the movies, or for anything that will take them out of the home."⁸ Home is an address to which one can send letters or telephone. But as an educational influence, as a source of an intimate and powerful, all-pervasive family tradition of social behavior, it has practically ceased to function.

⁵ Goodsell, *op. cit.*, p. 457.

⁶ Folsom, *op. cit.*, p. 17.

⁷ Cf. Lawrence K. Frank, "Changing Economic and Social Conditions," *Education for Home and Family* (Proc. Conference at Hot Springs, Arkansas, May 1, 1931), pp. 49-51.

⁸ A. M. Harding, "Relation of Science to Changes in Home and Family Life," *Education for Home and Family*, p. 81.

As for the church, it continues, now as always, its traditional work; and, in connection with life's failures—those who, whether physically, economically, socially, or spiritually, have fallen by the wayside—who shall say that its work is unworthy, or unworthily done? Through its Sunday Schools and Bible classes, through its young people's guilds and clubs of many sorts, it still seeks to influence the religious outlook of the young by providing a background of wholesome associations to permeate their moral and social development, and furnishing not only a definite philosophy of life, but also protection and support for all reasonable ambitions and desires. Those who retain their membership in such churches derive much comfort from the sense of brotherhood, of family life, of belonging together socially as well as spiritually; and they feel strengthened when they seek and receive from the church guidance and concrete direction in facing the problems of our difficult modern world.

But the age in which we live is intensely secular, and young people, as they grow up, emancipate themselves easily and readily from the apron strings not only of their biological mothers, but of Mother Church as well. Science has weakened (we are assured) ⁹ the arguments

. . . for the older ways of life. People no longer look with the same degree of abhorrence as before upon divorce, birth control, female unchastity, juvenile disobedience, adolescent "petting," or "sensual" amusements and pleasures. Religion survives as a source of personal comfort and idealism, but as a source of authority it has well-nigh disappeared among large segments of our population. People are guided by their own individual needs plus reason, (not) by tradition.

Young people today throw themselves into the life around them: in their secular schools, their secular occupations, and their secular entertainments. They pride themselves on being able to stand, socially as well as economically, on their own secular feet.

⁹ Folsom, *op. cit.*, p. 18, slightly condensed. On the question of numbers, it is stated that "about four fifths of the children of elementary school age in America attend public schools" (L. R. Alderman, "What the Schools Can Do for Parent Education," *Education for Home and Family*, p. 209).

It is only when lonely, unfortunate, or unable, for one reason or another, to carry on by themselves and keep up with the onward march of secular humanity, that a number of them fall back upon the unselfish love which is always there in the church, waiting and ready to render assistance. In our modern industrialized world, the older adolescents and younger adults derive their social standards chiefly from an environment which is, or seeks to be, wholly secular: from the state schools, if not from the movies, the magazines, the office, and the workshop. In our rapidly changing world, where so much has to be scrapped if we are to keep up with the future as it comes along, the traditional norms of an age-old church seem hopelessly outdated. Today, we are informed,¹⁰

. . . we are discovering that we are cast suddenly adrift in a precarious and ambiguous world since few, if any, of our ideals, conceptions, and beliefs, our standards, our patterns and our ethics have any real significance or relevance to the lives we are called upon to live. In this industrialized society, one of the outstanding aspects of the situation is the helplessness of the individual. Without warning he finds himself without a job or his earnings are reduced. In the face of these conditions, many of the traditional patterns and standards of behavior are totally impossible of achievement. If our cultural traditions and educational agencies continue to hold up the old pattern, they are, without doubt, sowing the seeds of anxiety and strain. (There is) need for revision in our ideas and in the patterns of behavior which we hold up to our youth for emulation.

It is to the standards of today, rather than of the centuries, that they feel drawn and, according to the latest literature, should feel drawn.

Schoolteachers in the large secular schools of today have come to realize that, unless the state school takes it upon itself to look after the social education of the rising generation, they will be missing an important opportunity, and their own work in the schools, as well as the all-round development of the pupils com-

¹⁰ Lawrence K. Frank, *op. cit.*, pp. 40-43, condensed.

mitted to their charge for a few hours each school day, will suffer, and suffer directly. It can scarcely be argued, we are told,¹¹

. . . that the public school is responsible only for the intellectual life of the child and that the home is responsible for the rest of his nature. The child is a unit, and even his intellectual attainments depend in no small measure upon his motives, interests, and social attitudes.

Believing, therefore, that schoolteachers stand toward their pupils *parentis in loco*—a belief entirely shared by both pupils and their parents—the teachers in the public schools have taken their new task seriously, and have asked themselves what they can do to provide for the modern child an adequate social and biosocial education.

In so inquiring, they find themselves in a position like that of the teachers in private schools, except that the task is much more difficult for the secular schoolteacher. Teachers in the private schools find a family and church tradition already established.¹² They have themselves been selected as teachers partly because they belong to this tradition, and they can count upon the acceptance of its norms, and upon the cooperation of both parents and children. In the secular schools of today, however, the situation is very different. Not only is there the difficulty of vast numbers, where pupils come from all sorts of different backgrounds and have very little in common upon which the teachers can hope to build; but to the secular eye the world in which we live is before all else a changing world. Its standards are changing rapidly. Its traditions are still very much in the making. It has undoubtedly a great future, but it has very little past; and its norms—the norms of a forward-looking democratic social order—have still to be discovered and classified. The one thing certain about them is that they are rather strikingly different from the

¹¹ Arnold A. Gesell, "The Teacher-Child Relationship," *Understanding the Child*, Jan., 1931. Thus the Oxford colleges provide "moral tutors" in addition to the "work tutors," and most modern universities provide "advisors," as well as "deans of men" and "deans of women."

¹² Cf. Blanche Carrier, *Church Education for Family Life*, 1937, pp. 212-216.

traditional conventions. We can begin, writes a present-day authority on social education,¹³

. . . to inventory and study the patterns of behavior and the standards and codes of conduct to which we have been inviting the acceptance of young men and women and through such a study attempt to show where new patterns and standards must be created for the home and family life of tomorrow. This is a task not for today alone, nor for tomorrow, but (for) the next few generations. By the very nature of the case a solution, if we may use that term for the large readjustment of life that must be sought, is a task for our successors.

What to do? Toss the problem to the philosophers headed by John Dewey and wait until their findings are all in? Perhaps, in the long run. But for the present, one thing can be done at once, and on this all schools of thought are agreed. An attempt can and must be made to bring together the secular family and the secular school, and to develop cooperatively a new family and civic morale, a school-centered social outlook which will take in the parents at one extreme, and the state at the other.¹⁴ Hence the almost universal creation, in our own generation, of parent-teacher associations to deal with the general problem of finding out and doing whatever is going to be most helpful to little Johnny and Mary as they grow up toward full membership in the new social order, and with all sorts of special problems thrown in for good measure. What can the schools expect from parent cooperation? At least the following:¹⁵

Conversation in the home can use and develop the subjects taught in school. Parents can make vacations and trips strengthen the child in his school subjects. Parents can, by giving drills in certain subjects, greatly strengthen the attainments of their children, (providing) comradeship and mental stimulation.

This enormous parent-teacher movement is gradually becoming self-conscious. It is aware of the confusion and crosscurrents of

¹³ Frank, *op. cit.*, pp. 60-61, condensed. This is in accordance with much in the program of pragmatism.

¹⁴ Cf. William John Cooper, "Mother's Heart Plus Mother's Head," *Education for Home and Family*, pp. 31-36.

¹⁵ L. R. Alderman, *op. cit.*, pp. 211-212, condensed.

interest arising from the multiplicity of special problems—some economic, some psychiatric, some social and biosocial—and is seeking to develop an appropriate philosophy, a reflective awareness of the objectives, methods, standards, and immediate programs which will best assist it in carrying out effectively what it is best fitted to do.¹⁶

It is here that the three typical philosophies of education have a contribution to make. From the standpoint of teachers, social workers, and indeed of the parents themselves, it is generally felt at the present time that a vast teaching program has to be undertaken, one directed primarily toward educating the parents. How can you, in a few short school hours each day, help Johnny to become a well-adjusted member of the new social order, when his parents are backward, ignorant, anything but well-adjusted themselves, and are (unconsciously, no doubt, but effectively) doing all they can to undo your well-meant efforts? The first prerequisite for a socially educated son is socially educated parents—parents who understand and accept the norms implicit in the new social order. Then again, parents have largely outgrown and forgotten their own childhood. They need to learn the essentials of the new psychology of childhood and adolescence, so that they can grow along with their growing children, sympathizing with their efforts and reinforcing them where reinforcement is needed.

This education of the older generation, so as to make of its members good, useful, and helpful parents, is part of the adult education program of today. It requires the services of organizers, home visitors, and group-discussion leaders who will not so much be professional experts coming in from the outside with superior knowledge, to be accepted without question, but will be parents themselves with local interests, parents interested in the other parents and children, as well as in the problems discussed. In a word, such leaders will have to be, by and large, not professional teachers, but lay leaders. Lay leaders, we are told,¹⁷

¹⁶ The membership of the National Congress of Parents and Teachers was estimated at 2,500,000 in 1940. The National Council of Parent Education, founded in 1926, coordinates all the work.

¹⁷ Folsom, *op. cit.*, pp. 197-198, slightly condensed.

. . . are largely homemakers, many of them college graduates. They give part-time service, and their work consists largely in the leadership of parent study groups. According to the more recent thinking on the subject, these leaders are not so much "trained" as "developed" out of the situation itself. The parent education movement is remarkable for its use of the discussion technique and the rejection of the formal teacher and class pattern in which a teacher is supposed to impart his superior wisdom to his students.

Such lay leaders, leading study groups of learners, and themselves learning as they go, will, however, need some training themselves; and it is precisely here that the philosophy of education, which is realist-minded, becomes clear and insistent.

Who are these "lay leaders"? asks the realist. Are they themselves mere learners, blind leaders of blind pupils, not really knowing where they are going, but trained only in the method of conducting discussions? Or are they themselves well-trained in the subject matter of what is being learned? Some authorities write primarily in the spirit of the first alternative. "A few of our leaders who seem to be doing the best work would never have attempted to secure a certificate based upon specific academic requirements. They have become leaders in learning rather than teachers, which appears to be a desirable attitude for adult groups." "Subject matters takes a secondary place. The leader considers herself first as a means to the learning of the individual parent and secondarily or even more subordinately as identified with any subject matter material."¹⁸ The realist does not deny the value of the discussion technique, but his main emphasis is upon the second alternative. To him it is obvious that the leaders simply must know what they are about. They must know the facts, so far as the facts have been ascertained, measured, and reduced to systematic order. They must have a thorough grounding in child psychology, and also in parent psychology. Their acquaintance with sociology, and with the educational philosophy

¹⁸ Gertrude Laws, "The Training of Lay Leaders in Parent Education," and Flora M. Thurston, "Theory and Technic of Training Professional Leaders in Parent Education," in *Education for Home and Family*, pp. 141-142, and 189-191, respectively, condensed.

appropriate to the new social order, must be especially thorough: clear, distinct, well-grounded, able to give a good account of itself in discussion.

They must also have had factual experience, as well as theoretical grounding. Their own children should be models of what the well-adjusted modern child should feel, think, say, and do.¹⁹ The leaders should also be well-acquainted with parent-teacher literature and should know how to secure library cooperation in bringing the parents and this literature together. In all this, their knowledge should be factual, statistical, and objective. It is, of course, well to have trained ability to conduct discussions and to impart necessary information by means of the techniques found suitable for adult education.²⁰ But from the realist standpoint, it is insisted that the information imparted must be accurate.

This means that the leaders must themselves be taught by experts—men who know, with the certainty of the trained scientist, what the facts, the laws, and the norms are, in this new field of modern social education. The realist thus envisages a great deal of research work of a factual and socially useful nature.²¹ It will be necessary to discover accurately what parent-teacher groups in rural and in urban communities can attempt successfully, what practical results are to be expected from all this organizing, visiting, and discussing;²² and it will also be necessary that the in-

¹⁹ Cf. Elise H. Martens, "Some Parental Problems," in *Education for Home and Family*, esp. p. 119: "Emotions are more plastic than general intelligence. Habit training in daily home responsibilities which shall encourage regularity, industry and accuracy, and the development of social attitudes of contentment, cooperation, and contribution even in a small way to the happiness of the family—these are the avenues through which an understanding parent may secure maximum results in the training of the child in the home."

²⁰ Cf. Gertrude Laws, *op. cit.*, p. 147.

²¹ "Topics which have been worked on in graduate colleges include: methods of teaching parents, methods of measuring the ability of parents to learn, methods of testing results, methods of home rating of parents' practises, the evaluation of sex education programs, and the building up of curriculum materials in parent education" (George D. Stokldard, "Professional Training of Leaders in Parent Education," *Education for Home and Family*, p. 176. Cf. also Flora M. Thurston, *ibid.*, pp. 193-194).

²² Folsom, *op. cit.*, p. 210, discusses these results without undue optimism.

formation about child psychology, family psychology, adolescent guidance, vocational guidance, and the rest, shall be as authoritative and correct as the present state of knowledge makes possible. Radio lectures of a factual and authoritative nature, providing a reliable basis for discussion and investigation, will here, the realist insists, be helpful.²³

What is particularly to be avoided, as the realist sees it, is (1) mere futile get-togethers where nobody knows what it is all about, but a socially pleasant time is had by all. There is stimulation and inspiration, but nothing concrete comes of it. Almost equally useless is (2) discussion for the discussion's sake, experimentation for the experimentation's sake, leading to nothing but further discussion and experimentation—more and more of the same. The only possible way of avoiding the ignorant idealism, with its absolutely blind and inefficient enthusiasm, which so readily infects popular movements, and the stupid and utterly superficial pragmatism of half-trained minds, is to have, somewhere in the movement, a controlling place assigned to strict realism, with its insistence upon facts, figures, and a decent objectivity.

As far as the work of the schools is concerned, the question arises as to whether Social Education should or should not be made a subject of formal instruction. Should there be regular class hours set apart for high school and college youth to study such subjects as Department, the Facts of Life, and essentials of Present-Day Ethics and Social Philosophy?²⁴ Or should the

²³ Cf. C. A. Fisher, "Utilizing Extension Divisions," *Education for Home and Family*, p. 205. Fisher defends the lecture method against the usual (pragmatist-minded) criticisms.

²⁴ The study by Cecil Haworth in 1935 ("Education for Marriage among American Colleges," *Bulletin of the Association of American Colleges*), the questionnaire of the American Home Economics Association (*The Present Status of the Work in Family Relationships and Child Development offered in Home Economics Departments in Colleges and Universities, 1934*), and the article of Maurice Bigelow and Helen Judy Bond ("Courses on Marriage and the Family in Undergraduate Colleges": *Jour. Social Hygiene*, January, 1936), and a number of later investigations of the same general type, indicate the wide extent to which something of this sort is done.

subject matter indicated by such titles first be acquired by all regular teachers and then be instilled incidentally but insidiously in connection with all classwork—somewhat as spelling, grammar, and literary self-expression, or the essentials of scientific method, may be acquired from all teachers, in connection with the regular work in Arts and Science?²⁵ Or finally, should social education be acquired, chiefly, in connection with activities which are extra-curricular: in sport or debating, in fraternities and sororities and the like, functioning under the general supervision of a dean of men or dean of women?

On this question, opinions at the present day differ. Authorities who are realist-minded, with their sharp insistence that somewhere in the educational process there must be information which is factual, statistical if possible, and completely objective, are inclined to favor the offering of direct instruction. "Preparental education is taught through classes in courtesy or character education, civics, sociology, psychology, home economics, nurse's training, and so forth. The nursery school has proved valuable as a training and observation center, at both elementary and advanced levels."²⁶ The realist points out that where grammar, good English, and scientific method are left to be picked up anywhere and everywhere in school work, the results are seldom as satisfactory as where there is direct instruction. Everywhere may, in practice, mean nowhere. Consequently many institutions of learning make explicit provision for class instruction, frequently compulsory, in these subjects. As to the partially supervised extra-curricular activities, involving in certain cases the cooperation of parents and the churches, realists express themselves as mildly in favor of them; but their main insistence is upon the superior value of regular classwork with regular standards of study and achievement.²⁷

So much for the position of realism. Idealists admit all the

²⁵ Cf. Agnes Tilson, "Preparental Education," *Education for Home and Family*, pp. 127-129.

²⁶ *Ibid.*, p. 126.

²⁷ Cf. Ernest R. Groves, *The Family and Its Social Functions*, 1940, Appendix.

facts to which the realist points: the changing standards of a secular, mechanized age, and the need for a social education which shall be modern through and through. They agree that the new social education should somehow radiate outwards from the child-centered school system so as to include parents as well as children in the development of suitable social attitudes. But they are a little cautious about accepting the realist's remedy. Objective information taken down from the library shelves and handed around in tabloid form by objective lecturers and objective-minded visitors to homes and group centers is all very well in its way. It is, in fact, like the capsuled medicines so popular in our time. They are easily taken and are swallowed holus-bolus. But whether this kind of thing is really assimilated, is a further question.

Objective information, as such, is external to the nature of human beings, who are naturally subjective and incurably social; and unless it is carefully de-objectified and re-socialized and made suitable for subjective consumption, it will remain obstinately objective. I.e., it may easily remain a foreign body which never acquires living, participating citizenship. Children are already, in their own natures, highly social. They take kindly to stories about fathers, mothers, and children doing thus and so. To a young child, the *Just-So Stories*, precisely because of their quasi-human and socialized form, are more immediately intelligible than any objective textbook of zoology or semantics; and *Little Peter*, or a volume of fairy tales, conveys moral and social lessons with far more conviction than the volumes of Professor Ernest R. Groves or even the latest edition of the *Encyclopedia Britannica*—in spite of the admirable objectivity of the parts dealing with ETHICS and SOCIOLOGY.

An education which is to get in under the skin and really educate must therefore, the idealist insists, be something that stimulates living persons to a further life and growth of their own, a life and growth which are personal and social. Such life and growth, once started, have more *Lebensfähigkeit* than the encapsuled wisdom of the scientists, however objective and however authoritative. To an idealist it thus seems more important

that the process of living and growing, of reaching out after a better life and a more satisfactory knowledge, shall be stimulated to self-development, than that the material at first absorbed shall be objectively correct. "It is better and more dynamic ideals that we want rather than more facts. It would be a hopeful sign if a growing number of teachers properly endowed with sympathy, ideals and knowledge, should fit themselves for this work as for a great mission."²⁸ No one nowadays believes that making children learn a Collect by heart each Sunday really develops or encourages religion as a living faith. But the dogmas of the new social science, however objectively sound, can be equally dreary and deadening. You may tell a young child that This is a Changing Universe, that Life should be Approached with a Social-Experimental Attitude, that Standards are in Process of Evolution. By intensity, recency, and frequency, you can make such phrases fixed ideas in his growing mind. He will be able to repeat them like a parrot, on any and all occasions, doubtless with the happiest effect upon visiting lay leaders.

But—and this is the point—will such realist-minded drill methods mean that the child believes, accepts, and acts upon such principles, as though they came from within and issued from his inmost self? No. What says the child-psychologist? Children take naturally to games, i.e., social play. In this, what they look for is something very different from "Changing Standards." The rules have to be fixed and are beyond question, much as the words in which you repeat a once-told story must be unvarying. If you tell children that the rules of games are the merest social conventions adopted by groups freely for their own social purposes, and that they can be changed just as soon as the group wants something better or even only something different, what you say may be as objectively sound as you please; but young children will not be able to believe it, or even entirely to understand what you mean.²⁹

²⁸ Goodsell, *op. cit.*, p. 549. He demands that the instruction shall be "shot through with a fine spirit of idealism."

²⁹ Cf. Jean Piaget, *The Moral Judgment of the Child*, 1932. Piaget's own interpretation of these play-experiences of rules, it should perhaps be added, is not idealist, but pragmatist in spirit.

At a later age, children will enjoy acting as members of a committee which organizes social activities and indeed makes many of the rules, as in Scout work or in C.G.I.T. or other teenage activities. But even here, the idealist points out, you will find that behind all such committee activity, particularly in the field of morality and religion, there is a faith in something further, something toward which the committee is feeling its way, and which it does not believe it is inventing—something which transcends experimental, or social-experimental, convenience. In fact, if you can really bring yourself to face the actual facts, you will find (the idealist insists) in *all* value-experiences—moral, esthetical, social, or religious—a feeling for something there, something objective in the sense of satisfying reason, and ultimately transcending anything as simple as social convenience. This is not just make-believe, but is genuinely believed; and the idealist explains it as an intimation of the Absolute.

In connection with the parent-teacher movement, the idealist insists upon the value of the movement, as a movement. It may seem to exhibit confusion, a multiplicity of discordant tensions, a tangle of well-meaning but unrealistic impulses. But there is life there, and forward movement. The discords will eventually harmonize, the tangle will get itself straightened out, the impulses will lead toward better and wiser social living on the part of all concerned. For what holds the movement together and gives it life is a faith that out of such strivings something of genuine value will emerge, especially if the guidance implicit in all value-judgments is followed until its directional voice becomes clear and unmistakable. It is therefore more important to get things going, to keep the movement moving, to have everybody concerned keeping his interest alive by doing something active and forward-reaching, than to hand over the problem to a small group of realist-minded experts; for they will be sure to present an objective report to be adopted, printed, and put on the reference shelves, after which everybody who was once concerned will go about his business, turning his attention to—something else.

Social education, as the idealist sees it, is a matter of social

living and social growing, of cooperation in facing problems together and seeking together the guidance that comes to those who seek. It is not something that you can take out of its setting in life and refer to the laboratory and library for a final ruling. The movement is itself social education in the making, growing and maturing slowly from within—the gradual interweaving of teachers, parents, and schoolchildren in the social patterns of the new age. That is what it is, and that is what the idealist desires it to be.

As far as the work of the schools is concerned, the idealist, while by no means closing the door upon the development of class hours set apart for the reflective discussion of the norms and ideals implicit in the present-day movement, especially if discussion and essays rather than docile acceptance of authoritative information are the methods employed, lays rather more emphasis upon the wisdom of having *all* teachers function as leaders in suggesting the modern type of social attitude. "Teachers whose own lives and emotions are well adjusted will tend indirectly to develop attitudes in their students which are favorable to happy family living." "If married teachers have superior advantages, the reason may be attributed to emotions and attitudes rather than to objective knowledge."³⁰

The modern attitude toward life and its problems should be, as in "The Iowa Plan,"³¹ a natural part of the whole social atmosphere of the school, permeating the work in each and every class, constituting an integral part of the background which influences the developing outlook of the pupils almost unconsciously, and so becoming an integral part of their life and growth. As for the extracurricular activities, these, if under the supervision of a tactful official, can doubtless be made of great value in developing, from within, the new attitudes toward social

³⁰ Folsom, *op. cit.*, p. 204. The author's reasons, while idealistic, belong to empirical (pragmatist-minded), rather than to transcendental, idealism; but they illustrate the position.

³¹ This, as described by Edwin D. Starbuck, "conceives of character education as a phase of the total school curriculum and organization rather than as a separate course or activity (*ibid.*, p. 65).

and biosocial problems. But, where the realist insists that somewhere in the system, whatever the detailed arrangements, there must be objective information, the idealist insists that somewhere there must be persons of insight, competent to furnish leadership and guidance, as well as stimulation, to the young people committed to the schools. As we read,⁸²

Whether or not activities related to home experiences do educate in and for family living depends not so much upon the choice of activity as upon the insight and interest of the teacher. The teacher who said the "*big* aims were to aid (the children's) growth in every possible way, to help them meet life's experiences, and to prepare them for good citizenship," was preparing them for citizenship in the democracy of the family when she helped them to wipe up what they had spilled, to take turns, to be considerate of each other's rights, to gain independence, to find out things for themselves, and to be happy in their work. These are some of the qualities which make for happy family life.

So much for the position of idealism, insisting upon a life and growth directed by and toward insight. Pragmatists accept the idealist criticism of the realist remedy. It is altogether absurd to try to cram a mass of objective information, as such, down the throats of anything as biosocial as parents and children. Pragmatists also approve strongly of the idealist praise of the parent-teacher movement, as a movement. But they object, equally strongly, to the transcendentalism characteristic of the idealist position. In parent education groups⁸³

. . . we are now rightly placing less emphasis upon "ideal" family life, fixed rules. . . . We are emphasizing growth and development, the interaction of persons, the total family-community situation, the influence of culture upon our attitudes, and the need for facing openly the resulting conflicts between values.

What is this "insight" (asks the pragmatist) to which idealists lay claim? It does not appear to be based upon the facts—to which idealists are indifferent. It does not appear to be the out-

⁸² *Ibid.*, p. 92.

⁸³ *Ibid.*, p. 232, with empirical emphasis.

come of group pooling of information and ideas, as people communicate and participate in the new movement. It just sits aloft with superior wisdom, like a transcendental dean of men or dean of women, prepared to furnish guidance and direction *de haut en bas*. What is the source of this marvelous superiority? A superiority which transcends both facts and social experience, however, is a merely fancied superiority. In this day and age we can see that such talk is mischievous nonsense—the product of a wiser-and-holier-than-thou attitude which will not withstand intelligent criticism. Away with it!

At the present day (the pragmatist insists), the only respectable basis for anything claiming to be regarded as genuine wisdom is biosocial and social experience itself. Genuine wisdom, insight, and sympathy are found, we are informed,

. . . in teachers with sound general preparation, mature personalities, and genuine interest in youth as persons.³⁴

Modern education is concerned with the child's total experience. It is through participation in living that attitudes and habits are formed, skills are acquired, information is gained, and character is built. Time and environment may change, human inventions come and go, but to learn to live one's daily life well is still the basic purpose of the educative process.³⁵

An altogether empirical struggle for a worthwhile daily life, in the midst of an environment largely hostile to the human life cycle, develops not absolute standards, which transcend the process of living, but flexible standards which are themselves in process of life and growth—changing standards suited to a changing universe. The only effective attitude toward such conditions is the experimental attitude of taking things as we find them and aiming at developing ways of interacting with nature whose results will be satisfactory to us.³⁶ Cooperative experimentation in

³⁴ Folsom, *op. cit.*, p. 234. He adds that "family education materials should be based on everyday experiences and problems in the group using them."

³⁵ *Teacher's Guide to Child Development in the Intermediate Grades*, 1936, condensed.

³⁶ Cf. John L. Childs, *Education and the Philosophy of Experimentalism*, 1931, pp. 61, 83, 115, 135, 227.

building up community norms and attitudes suited to present-day community problems is the only useful method, the only method which can be trusted to work.

The fact-finding, on whose value the realist insists, is all very well in its way. But its value is preliminary, not final. The fact-finding, and the recommendations to which it points, have to be submitted to the parent-teacher committee judgment; and the committee will accept only those portions of it which are acceptable to the community judgment, the portions which are socially, economically, and politically practical. Thus in Brainerd, Minnesota,⁸⁷

. . . the schools established a twenty-lesson series on "the girl herself," "the girl and the future," "the boy himself," "the boy and his future." This material was put into the schools at the request of parents who had used it in parent education classes.

It is the socialized judgment of the executive which makes the decisions, not the abstract realism of the factually trained expert. And this is necessarily so. In a social world, it is the social judgment which, at least for the time being, is final.

As to the position of idealism, pragmatists, while utterly rejecting the transcendentalism and the claim to superior wisdom, are always willing to consider concrete programs.⁸⁸ These are oriented toward legislative, as well as educational, reform. Here also the decision rests, as it must rest in a democracy, not upon anyone's alleged insight into the Absolute, which idealists claim to have, but upon the community judgment as to how much of what is proposed can wisely and prudently be accepted by "moderate progressives," in a community which does not pretend to be more than empirical in its desires, its aims, and its satisfactions.

In connection with the parent-teacher movement, the prag-

⁸⁷ Folsom, *op. cit.*, p. 110.

⁸⁸ Goodsell, *op. cit.*, pp. 536 ff., expounds the views of the "moderate progressives." "It is probable that this group is composed of a majority of the enlightened and reflective minds in the community. (They) are in favor of a gradual solution, through study followed by (1) legislation, (2) education.

matist entirely approves of the enormous numbers of members and the biological background of their strong interest. A parent is naturally interested, and should be interested, in making of his children up-to-date members of modern social movements. He is and should be interested in acquainting himself with educational psychology and sociology to such an extent as to enable himself to develop present-day attitudes and so to grow forward, solidly, along with his children and the present-day community, pooling his information and ideas with his fellow-citizens, and participating, along with them, in solving cooperatively and experimentally the social problems of the new age.

There is, however, at no point any question of higher insight or final knowledge. Discussion-leaders, while trained to guide discussions, do not profess to know all the answers beforehand. It is all quite empirical and social-experimental. The leaders as well as the participants, learn as they discuss, as they bring to a common focus all the information, experience, and ideas for action that they have. The leaders simply provide a clearinghouse where the contributions of the group may be brought together and sifted out, compared, revised, and eventually reshaped into a concrete program acceptable to the group as a whole. At every step there is no higher court of appeal where group judgments can conceivably be reversed. It is, and can be, only the best judgment of the group that is competent to decide what the group wants, is willing to attempt, is willing and eager to cooperate in putting across. The whole background, outlook, and method is thus, and must be, social-experimental.

A realism which is purely factual will usually linger far behind what a well-developed and alert community is willing and eager to try out in practice. An idealism which professes to be absolutely ideal, to transcend not only facts but also group judgment, is so far out in front as to be completely impractical. The parent-teacher group, as a parent-teacher group, gradually educates itself as it goes along. It educates itself to what it needs to do, what it can do, and what it will do—in fact, to what it is in the process of doing. It teaches itself by doing, by cooperative experimenta-

tion and cooperative discussion oriented toward action; and the outstanding result is, very properly, more of the same kind of thing. Social growth is slow but sure. In this way the parent-teacher group has turned itself precisely into a modern community, using community methods for solving community problems, and educating itself socially as it goes along. This is an almost perfect example, as the pragmatist sees it, of pragmatism in action: communication, participation, democracy being itself, developing its inherent norms by applying them in practice.

In the work of the schools, pragmatists have very little use for the objective information technique sponsored by the realists. Pragmatists are far more interested in the response than in the stimulus. They like to be sure that there is no merely passive receptivity of work done by others, however excellent that work. And they would prefer, if possible, that the stimulus as well as the response should come largely from the class itself. Thus in the course on marriage and the family led by Professor Groves,³⁹

The students elect a committee to advise with the professor regarding the content of the course; thus it is gradually but continually changed to meet the actual needs of the students. The trend of these needs, says Professor Groves, has been somewhat away from problems of courtship and of family finance and toward the problems of sex, birth control, and the psychology of marriage. The students feel that they can learn about divorce laws and family budgets elsewhere, if and when necessary; they want to get here the things which are here uniquely available, to learn how to prevent failure in marriage.

So long as the objective information comes in as an integral part of the work initiated and being carried on by the members of the class, as they actively engage in cooperative research and discussion and eventually come to a committee decision upon a cooperative program, the pragmatist sees no harm in it.⁴⁰ If the members of the class come together to work out a solution to a

³⁹ Folsom, *op. cit.*, p. 128. Note that it is a part of the factual information which is not wanted. It is the pragmatic social planning which meets the wishes of the students.

⁴⁰ Folsom, *op. cit.*, pp. 36 ff.

social problem which interests them, and if, as a part of the procedure necessary to reach a socially satisfactory solution, *A* offers to find out about this point, *B* to discover the facts about that point, and so on, well and good. That is the way things should be. The information is brought in, sifted, discussed, and eventually a decision which considers everything relevant to a socially satisfying solution is reached, and all proceed to carry out the program indicated.

Social education, that is to say, is a social problem and requires social methods if the solution reached is to be a social solution. The only way in which formal instruction can properly enter in is if the group itself requests a formal lecture upon some technical topic, e.g., a lecture with diagrams, charts, and statistics, by a competent scientist or medical man on such a topic as "the facts of life." But the factual information is never regarded as final in the work of a pragmatist school. It merely represents material which needs to be socialized, to be taken apart, discussed, and applied by the class members to their own social problems, and culminates in a common program of practical activities, as well as the development of an emotionally well-adjusted, socialized attitude.

As to the idealist type of discussion, guided by any member of the teaching staff when such subjects come up in connection with his particular type of classwork, the pragmatist can see no harm in it, provided always that the guidance is never toward the acceptance of some transcendental substitute for empirical, social-experimental investigation of a direct sort. If the discussion represents a pooling of ideas taken as cues to action, yes, the pragmatist is in favor of it. Thus we read that⁴¹

. . . several institutions are outstanding for the way in which the whole curriculum is integrated toward actual living, including family living. These institutions represent the progressive education point of view on the college level. At Bennington College students are given a two months' vacation during the winter to enable them to participate in actual work in various industries and agencies. A large

⁴¹ *Ibid.*, pp. 133-134.

part of the work of the social studies division is centered around contemporary women's problems. Students themselves help to determine the content of courses.

But in such discussions there must be no question of superior "insight," too proud to consider evidence and concrete consequences of a social-empirical sort. It must be a democratic discussion, initiated by the class, with the teacher merely furnishing information and guidance when requested, so that the work and the final solution will be the work and solution of the class, and not just something handed out by the teacher. That is to say, the discussion must be discussion of the pragmatist type, and must never have the especial characteristics which mark the idealist type of discussion. Only then will it be a matter of social-empirical communication, participated in fully by all class members.

When it comes to the question of the propriety of extracurricular activity as a sound way of acquiring the up-to-date social and biosocial attitudes, here the pragmatist has no doubts. He is definitely for it. He believes, as firmly as any college student, in the immense value for social-educational purposes of what is called "self-government." Anyone who has been privileged to sit in with such self-governing groups knows that young men and women, elected by their fellows to positions of social and indeed of economic responsibility, can and do develop powers of practical judgment which are astonishingly modern, as well as sure. They ask to be permitted to make mistakes, their own mistakes, and to learn by the consequences; and they do make mistakes—but not many. When these mistakes have unfortunate public consequences (as sometimes happens), they are usually sheltered from the worst consequences, on the ground that they are still young and inexperienced. But this plea is not, as a rule, put forward by themselves.

The only persistent challenge to the soundness of their judgment seems to come from realist-minded experts, who think these youthful decisions frequently indicate insufficient acquaintance with, and regard for, objective fact, and far too much social self-

confidence. But pragmatist-minded faculty advisors have nothing but praise for the way in which the young people tackle their problems and learn by doing, by social-experimental activities which certainly fit them for taking leading parts in the world outside, when they have passed beyond what the school can do for them. Not all campus leaders drop out of sight after graduation. Years afterward, you will still find many of them occupying important positions, still forging ahead.

Convinced by this evidence, pragmatists go much further. They not only approve of the extracurricular activities as assisting in the work of social self-education, but they would like to see these methods applied to the study of intracurricular subjects as well. Laboratory work, carried on by the students in groups, with a demonstrator or professor for consultation (if required) somewhere in the background, is usually a fair illustration of what is meant. The work is carried on informally, as a cooperative social project. There is something for each individual to do, and all cooperate in producing the final result. Such work differs, perhaps, from what a pragmatist would fully approve, in that, in realist-minded laboratories, it may be the factual, objective-informational result that is regarded as important, rather than the social development of social attitudes toward discovery; and there may be no consideration of the practical, social applications and consequences of the experiment. But if the social side of laboratory work, and the social consequences of the resulting discoveries are given sufficient attention, this means that schoolwork is being treated as if it were an extracurricular activity; and this receives nothing but praise from the pragmatist.

It is the same with the preparation of notes, essays, and theses. The cooperative method of study, in the spirit of extracurricular activity, is approved of by the pragmatist. Thus in many seminars for advanced students, the work of the seminar is divided up, after discussion and consultation, among the members. Never fewer than two agree to work out this or that part of the common task; and they work together. The resulting papers are read by the writers to the group. They are discussed, criticized,

and revised so as to give more adequate expression to the judgment of the whole group, including the professor. They are then put in their proper place in the file where all parts of the work are kept. At the end of the semester or year, after full discussion, someone—it may be a small group of students, or possibly a trained secretary, or sometimes even the professor himself—writes up the final result. This may be a mere report; or it may receive publication as a paper in a learned magazine, or even as part of a book. Many books have been written this way.⁴²

The socially educative value of such methods of study, applied to the regular subjects of the curriculum, is (as the pragmatist sees it) beyond question. Nothing better or more productive of socially useful results has as yet been developed; and it leads directly to the development of attitudes which are democratically enlightened, and indeed are up-to-the-last-minute as socially approved methods of problem-solving in the present-day world. Communication, the pooling of all resources, and cooperation in working out together the data, the evidence, the consequences, and the final solution of complex problems—these represent the best that we can at present expect. It is for this reason that they are valued far higher by the pragmatist than factual information, as such, or the claim to transcendental insight, with its sense of effortless superiority.

Let us put ourselves in the position of an experienced teacher, asking himself what should be his attitude toward social education. He first analyzes, much as above, with reference to what has already been done, the realist-minded, the idealist-minded, and the pragmatist-minded contributions toward the formulation and solution of the problem. A doctrinaire might then accept one of the three positions and might reject utterly the other two. But an experienced teacher knows that this cannot wisely be done. Even if he himself were willing to confine himself to the one point of view, he knows that in any large class there will

⁴² E.g., Benno Erdmann's philosophical seminar in the University of Berlin in 1911-1914 was directed in precisely this way; and so was many another.

be pupils of the other types, and that they will be dissatisfied with any one-sided treatment of social education.

For instance, if the teacher attempts to act merely as a pragmatist, a learner among learners, helping with the organization and indicating (when requested) where information may be sought—so that the members of his class will themselves do all the work cooperatively—he knows that the following is fairly sure to happen: A number of class members will come to see him, either as individuals or as a deputation. They will request him, politely but very firmly, to assume a more positive position of leadership. They are willing to cooperate, but he is a professional. He has been appointed to the position of teacher because he is more mature and has studied the subject as well as the best methods of educating pupils; and they want him to give them what information he has himself acquired. They do not care very much to know what their fellow-pupils think. It is all at about their own level. None of them really *know*. Accordingly, on the side of the factual information, they request the teacher to tell what he knows. In a word, they demand realist treatment. And in so doing, they will certainly be backed up by their parents.

But this is not all. They also look for a superior degree of insight or wisdom. If given information, carefully classified from the different points of view, but left to decide for themselves which point of view it is wisest to adopt, they make it very plain to the teacher that they expect him to give them a lead. They expect him to tell them to what conclusion he has himself come, and on what grounds. They do not promise to agree with him. But extreme impartiality and objectivity are emphatically not what they desire. They insist upon idealist-minded leadership, as well as realist-minded factuality. And in this also they will be backed up by their parents.

Suppose the teacher insists upon maintaining a strictly Socratic position, declaring that he is indeed familiar with the techniques of scholarship and will assist them in being thorough in their work, but that all conclusions reached will be theirs and not his, because he himself remains skeptical, unable to come to a positive

conclusion; what will happen? Let us assume that they believe him and do not regard his position as a mere pose. They will either think that a scholarly method which does not enable even the mature scholar to come to definite positive conclusions has something wrong about it—that it is an education which does not educate; or else they will think that the teacher is a failure as a scholar—and also, to precisely that extent, as a teacher and as a man. They will either pity him, or despise him. If they succeed in reaching conclusions themselves under his scholarly guidance, many of them will feel that they are self-made, and will regard their teacher either with patronising superiority, or with downright contempt.

The experienced teacher thus knows that he must be prepared to adopt whichever of the three philosophical positions is needed, precisely where it will be most effective. The information which is needed, even if it is not final, but merely represents a cross-section through the latest research, or research still in progress, is information which, when required, he must have. Nothing less will do. And the ability to stimulate and guide the efforts of all members of his class, so that there will always be something definite, specific, challenging, but not too difficult for each to be doing, is also a “must” for the teacher whose teaching is to be successful.

Each type of teaching technique will have to be kept distinct from the other two, so that he can apply the right technique to the right pupil, and on the right occasion. It will not do to mix them, or to try to substitute insight or experimental cooperation where factuality is needed, or vice versa. It is, however, quite clear, from the evidence, that many an otherwise good teacher is tempted, at times, to do just this, and some of the progressive education authorities seem to lend their unqualified approval.⁴³

⁴³ Thus Folsom (*op. cit.*, p. 116) permits himself to write, “The situation is most promising if the curriculum falls predominantly under the power of those educators, whatever their professional field, who in Lynd’s phrase, are concerned not with *what* they are teaching, but *for what*.” This is enough to make a realist-minded critic (e.g., a parent who is paying taxes) foam at the mouth. A teacher who is “not concerned with *what* he is teaching” (he would urge) is a teacher who should never have been appointed.

To know which technique to apply, and when, and how far, requires sound judgment; and the teacher's judgment can never be permitted to become one-sided. It must always be well-balanced, with adequate appreciation of the two alternatives.⁴⁴

The experienced teacher also knows that his work is by no means finished when the class is dismissed, or even when he has gone over the essays or other written work and has set down a definite mark for each pupil in his record book. He has to be a guardian, as well as a recording, angel. At any moment he is liable to have some pupil consult him and ask his advice. Class-work almost always has to be supplemented by informal interviews of one sort or another; and in the case of social education this seems to be especially true. In such interviews the teacher has to be ready, at all times, with a considered value-judgment of the intellectual abilities of his pupils (or, it may be, ex-pupils), of their characters and interests, and of their prospects of social usefulness and success in life. In fact, many of them will expect vocational counseling and encouragement, especially if they feel within themselves the stirrings of some ambition which will take them out of the home circle. But to give advice in this way requires a very delicately balanced judgment, as well as considerable factual knowledge and insight.

The teacher has also to be ready at all times to prepare verbal or written reports upon the abilities, characters, and prospects of his pupils. Sometimes it is an administrative official in the school system itself who calls for a report. Sometimes it is a committee which is considering the granting of a prize or scholarship, or (it may be) considering the possible suspension or dismissal of a pupil whose work or character is alleged to be unsatisfactory. But whether picking winners, or merely assisting in the work of a discipline committee, the teacher's judgment has to be many-sided. It almost always requires knowledge of the social background and outlook of the pupil, acquired outside of class hours,

⁴⁴ Cf. Folsom (*ibid.*, pp. 130-131), "Individual professors teaching a course on the family have an extreme attitude of some kind which needs to be balanced by the attitudes of their colleagues. Experience at North Carolina indicates that a single teacher can have the proper balance of attitudes and interests. . . ."

perhaps in parent-teacher contacts, perhaps more indirectly. In any case the teacher's judgment has to be objective and factual, as well as sympathetic; and it should be very sure. All this requires not only realistic knowledge and idealistic insight, but social and biosocial experience, and a steady balance of judgment.

Finally, any experienced teacher has to answer inquiries from prospective employers outside the school system altogether. A civil service official, for instance, may write to the chief administrative officer of school or college, stating his immediate requirement of well-trained young people, and asking if the institution can provide them. They are needed (he writes) to cooperate in a new kind of task, demanding such and such skills, a certain flexibility of mind, and certain social qualities. He explains that, while he is looking for graduates whose record of marks is satisfactory, this alone will not do. He asks explicitly for the judgment of the professors as to the social, as well as intellectual, fitness of the students they desire to recommend for the new work.

In such cases the teacher knows that his report or "testimonial" has to be something more than a formal recommendation or a half-page of selected superlatives. If his reply is to meet the situation, it must exhibit, clearly and distinctly, each of the three philosophic attitudes. It will have to be factual, indicating the evidence upon which his recommendation rests. It will have to exhibit insight into the requirements of the new job, as well as into the social and intellectual education of his students, so as to show that the job is made for students so trained, and that the training of his students precisely fits them for the new job. He has to indicate the social background, outlook, and aptitudes of his students, including their readiness to experiment, to get along with others, as well as their urge to "make good," to push toward success. All this requires clear, distinct, and well-balanced judgment on the part of the teacher; for he knows that in matters of social no less than of intellectual education, only such reports are taken seriously. In this way he shows that he too is not merely

academically but also socially educated; and that the schooling given in connection with his institution connects integrally with the work of the larger community of which it is a part.

FINALE

IN THE first edition of this work, I tried to write a sort of Platonic dialogue, projecting myself sympathetically and as impartially as I could into each of the three philosophical attitudes in turn, and leaving it to my readers to decide, each for himself, where his own strength lay. Like Plato, I did not entirely conceal my own bias, but left it to be discovered, if anyone should happen to be interested. I supposed, however, that each of my readers would use the book, primarily, to become aware of himself—to develop his realism, or it might be idealism or pragmatism, not only with full confidence in its value and usefulness, but also with a clear grasp of its alternatives. I supposed that, by following his own bent, each would become very clearly aware of its nature and implications for practice, and would thus be in a position to make, to the work of teaching, a contribution which would be his own, the best he had it in him to make. And I assumed that he would have no very strong interest in whatever position I might myself be inclined to adopt.

These suppositions have not proved entirely incorrect. Nevertheless, so many readers have written requesting me to clarify my own position, if for no other reason than that they may have something tangible and definite with which to disagree, that I will conclude by stating, in outline, my own position. It is precisely as follows:

As far as temperamental feelings are concerned (called by some, "prejudices," and by others, "intuitive convictions"), I am drawn toward an idealism which is not only empirical, but transcendental. I "feel" that factual realism is harsh and narrow, and that social-experimental pragmatism, with all its merits, is fundamentally superficial. I cannot get rid of these "feelings" if I

would. But I do not permit them to overcome my judgment. By practising the art recommended by Descartes, of deliberately constructing alternatives, I try to neutralize their bias. My intellectual training has been almost exclusively under the leadership of realists; and my friends, in the field of education, have almost all been "progressive educationists" whose philosophical bias is toward the pragmatism associated with the name of John Dewey. In attending the meetings of the American Philosophical Association I have become convinced of the thoroughness and usefulness of a great deal of work which is inspired by realism or by pragmatism; and I find myself totally unable to regard my colleagues as incompetent or wrongheaded, just because they disagree with what my personal temperament would incline me to accept as fundamentally "right."

As a result of many years of participation in their deliberations, as well as of logical and dialectical experiments of my own, I have come to accept a position which I call "balanced philosophy." I conclude that pure theory, divorced from practice, is unable to prove the exclusive truth of any philosophical position. It necessarily develops three logically divergent theories: the theory of realism, the theory of idealism, and the theory of pragmatism. But I accept Kant's view of the priority of the practical reason. Where practical life requires that a definite decision should be reached, I think all three theoretical attitudes can and should be used in making up one's mind.

By this I do not mean that we should try to "effect a synthesis." If the three positions are, in strict logic, mutually exclusive alternatives, any idea of "synthesis" has to be given up. Nor do I mean that we should adopt the position of "eclecticism." The eclectic rejects all "systems" as such, and simply selects, without reference to its implications, whatever his experience and his practical judgment indicate as likely to be useful for his immediate purpose. He can be a realist in the office, an idealist in church, and a pragmatist in politics, and he keeps these in three absolutely watertight compartments. His realism, his idealism, and his pragmatism never meet and never cooperate. I reject eclecticism for

this reason: The eclectic expects the practical man, resting upon his experience and his reason, but without any systematic thinking whatever, to be more successful in hitting upon useful truths than the philosophers, who make systematic thinking their business. I cannot believe that this is likely to happen; and also, for a philosopher to give up systematic thinking is to give up philosophy, i.e., to negate himself, which would be absurd.

The position, then, is this: Practical life needs all three attitudes, with their essential differences carefully preserved, yet without synthesis, without negation, and without neglect. How can the problem indicated be solved? Imagine a tripod, with one foot firmly based upon realism, one upon idealism, and one upon pragmatism. Imagine a pendulum suspended from the apex of the tripod, swinging freely. In swinging toward realism, it swings away from idealism and pragmatism. In swinging toward pragmatism, it swings away from realism and idealism. Yet the other two feet of the tripod, even when the swing is away from them, are important. They exert a counterpull, an influence which prevents the swing in any one direction from upsetting the tripod.

The swinging pendulum symbolizes our tendency toward action, and the point of the image is this: In a situation calling predominantly for realistic thought and action (e.g., in acquiring expensive but essential equipment for a school), the realism will be genuine, but no one-sided guidance will be provided. The counterbalance of idealism and pragmatism will be developed and respected, so as to prevent an overbalance in the realistic direction.¹ Similarly when a situation calls for idealistic leadership; the realistic and pragmatic insights and techniques must be used to keep the balance of our reflective guidance true at all

¹ The situation described by Folsom (*op. cit.*, p. 210) is clearly understood by all concerned as manifesting an overbalance in the realist direction. "Parent-teacher associations have not measured up to (their) opportunity. Often (the organization) busies itself with raising funds to buy equipment for the schools. Mrs. Langworthy said, 'You have it in your power to give us learning; but we cannot get it if you keep us busy buying pianos.'" It seems to me (R.C.L.) that there is nothing in such a situation which could not have been handled adequately by a well-balanced judgment.

times. And in the movement known as "progressive education," who is there who will not agree that a little counterbalance of realism, and even of a deeper, transcendental idealism, will at times help its eager advocates from going a little too far? ²

² My own position is indicated and discussed in the following, all published under my own name: (1) *Manitoba Essays*, 1937, pp. 405-432; (2) *The Journal of Philosophy*, Vol. XXXV, 1938, pp. 432-440 ("Synthesis or Comparison?"); (3) *Ibid.*, Vol. XLI, 1944, pp. 85-91 ("Balanced Philosophy and Eclecticism"); (4) *Philosophy of Business*, 1945, pp. 363-370, 421-422. It is further discussed by E. A. Burt, in *The Philosophical Review*, 1946, pp. 514-518.

APPENDIX

The following attitude test, revised for the present edition, has been designed¹ to enable the reader to determine for himself which of the three main types of philosophy best characterizes his own educational thinking. The reader is directed to read carefully each of the three numbered statements grouped under the letter A, and then to check that *one* of the three which most nearly coincides with his own opinion. He then proceeds to the three statements grouped under the letter B, then to C, and so on, always checking that *one* of each group of three which most nearly expresses his own view.

THE TEST

- A 1 () The external world of physical reality is the most fundamental thing in experience. It is objective and factual, something I have to accept and conform to, whether I want to, or not. What *I* want or feel is merely subjective and secondary.
- 2 () The self is primary, and "things" are secondary. Mind and self, rather than things or matter, are the essential factors in experience, and furnish the standards and ideals which give to experience its structure and aims.
- 3 () We should take experience as we find it, and not construct theories which transcend the obvious realities of the human situation. We are essentially biosocial organisms, responding to biological and social stimulations, and trying to solve the problems set us by our environment.

¹ The initiative in designing this test comes entirely from Professor E. R. Enlow, who published the original version, with the title, "Identify Your Educational Philosophy," in the *Peabody Journal of Education* for July, 1939 (published by the Faculty of George Peabody College for Teachers, Nashville, Tennessee). I have retained his material without changing the numbers or their serial order, but have rewritten a good deal of the content, in order to bring out more simply and more definitely the points which Professor Enlow and I desire to make prominent. This revised test is published by arrangement with Professor Enlow.

- B 4 () There are basic, self-evident certainties, upon which may be built a body of systematic knowledge about physical reality: a knowledge certain, objective, and in accord with the teachings of physical science.
- 5 () Human beings, in interactivity with their biological and social environment, act rather than contemplate, and produce overt results rather than sit and think and merely understand.
- 6 () What we really know is the inferred consequences of our own hypotheses, hypotheses which the mind has itself created and systematized, and consequences which the mind projects into the environment as patterns by which we seek to explain the behavior of things.
- C 7 () Learning is a process of growth, in which a self projects itself imaginatively into the experience of another self, effecting a spiritual merger, and so making the other experience its own.
- 8 () Learning is a process of social interaction resulting in the discovery of new techniques which can be applied to modern biosocial problems.
- 9 () Learning is a process of physical interaction between (1) an organism with a brain and (2) the physical environment: a process which gradually impresses upon the plastic nervous system the reaction-patterns which are found to lead to success.
- D 10 () It does not matter so much what we study, as long as we study deeply and develop our personalities.
- 11 () It is important to select the right subjects, especially subjects falling within the field of natural science, with a little mathematics and language-study to help us understand the sciences.
- 12 () We should emphasize the social sciences, not so much for their content, as in order to acquire mastery over social techniques for solving the new problems of our own time.
- E 13 () Learning by doing should be the universal method. Laboratory work is more important than systematic lectures, more important, even, than interpretative discussion.

- 14 () Primarily by the method of discussion, supplemented by lectures and experiments, the teacher should share his experiences with his pupils: inviting them to seek, in his company, progressively deeper insights, and thus to develop their own personalities to the utmost.
- 15 () Objective lecturing, factual, and analyzing the subject-matter into its elements and their inter-relations, is nature's way. Its clear-cut distinctions represent the authority of facts, speaking their own language and using their own logic.
- F 16 () Rather than attempt to cover the subject in a systematic way, the teacher should investigate outstanding problems by the experimental method, his pupils joining in the investigation and so acquiring a zest for cooperative research and a grasp of techniques which comes from doing rather than listening.
- 17 () Classroom teaching is primarily a meeting of personalities: intercourse in which the less mature self is stimulated to participate in the experience of the more mature self and, in that sharing, to become a broader and more interesting self.
- 18 () The teacher should be an impersonal channel of communication, and teaching consists in those who know telling those who do not know.
- G 19 () The pupil is primarily a plastic nervous system to be molded, in interactivity with the physical environment, along lines set by the scientifically ascertained nature of reality.
- 20 () The pupil is essentially a transcendental self, needing assistance in setting himself free from the fetters imposed by the physical and social world.
- 21 () The pupil is a social-vocal phenomenon, who should be so stimulated as to become a functioning member of the modern social community.
- H 22 () As a teacher, my aim is to be the voice of science: clear, distinct, systematic, factual, and impersonal.
- 23 () As a teacher, my function is, not to inculcate systems, but to suggest problems; and to stimulate my pupils to find for themselves solutions which will "work."

- 24 () To me as a teacher, education means inner spiritual growth of my students: the development of their inner nissus toward selfhood, self-consciousness, and self-direction.
- I 25 () As an administrator, my decisions are dictated by the impersonal results of objective experimentation. My buildings and equipment are in accord with the latest experimental results, and every detail of the work done in my schools is governed by regard for scientifically demonstrated fact.
- 26 () As an administrator, I expect from both pupils and their parents vigorous personality, and I want to assist the rising generation to its full growth, everyone making the best of himself.
- 27 () As an administrator, I am in thorough sympathy with the wants and desires of both pupils and teachers, and I try to keep in close touch with the larger community. I am here to solve problems as they arise, rather than to apply some theory of what a school should or should not do.
- J 28 () In spite of grumbling about the absence of thoroughness, as a parent I am satisfied with a school that emphasizes the development of personality above all else.
- 29 () As a parent, I desire that my son be trained in modern techniques so that he will be able to solve his problems successfully in the present-day world.
- 30 () As a parent, I want my child to get from the school, training in the methods of acquiring knowledge, as well as knowledge itself acquired by scientific methods.
- K 31 () As a student, I expect my teachers to provide me with opportunities for doing things and distinguishing myself, for acquiring scientific techniques, and for making contacts of a practical kind with the social-industrial world around.
- 32 () As a student, I seek objective information objectively expressed by teachers who know their subject and keep themselves and their feelings out of the picture.
- 33 () As a student, I seek contact with vigorous personalities, both in the teachers and in the subject-matter studied.

- L 34 () Education is "liberal" when it preserves the open-mindedness and curiosity of youth, and keeps alive the willingness to try things out experimentally, especially when tackling actual biosocial problems.
- 35 () Education is "liberal" if it forms us upon the objective reality of scientifically ascertained physical law. The thrill of discovery, the serenity of full acceptance of the physically real world, liberate us from everyday backgrounds and petty outlooks.
- 36 () All education is "liberal" which proceeds by spiritual interactivity, by mingling personalities so as to stimulate to further growth from within, to further insight into the laws and ideals which can make of our experience a thing of beauty and joy.

CHECK LIST

Directions.—Encircle the numbers which you have checked on the test (only one number to each letter). Then indicate the sum of your responses in each column by a number at the foot of the column.

	<i>Realist</i>	<i>Idealist</i>	<i>Pragmatist</i>
A	1	2	3
B	4	6	5
C	9	7	8
D	11	10	12
E	15	14	13
F	18	17	16
G	19	20	21
H	22	24	23
I	25	26	27
J	30	28	29
K	32	33	31
L	35	36	34

Your dominant educational philosophy is indicated by the heading of the column in which the majority of numbers are encircled. If your answers are fairly well distributed among the three types of educational philosophy, you may be developing a "balanced" philosophy.

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